THE VETERINARY JOURNAL

AND

Annals of Comparative Pathology.

DECEMBER, 1895.

## THE BOT-FLY OF THE HORSE.

BY THOS. B. GOODALL, F.R.C.V.S., CHRISTCHURCH.

THOSE of your readers who interest themselves in natural history must, I am sure, feel indebted to you for the publication of the admirable memoir by Mr. Wm. Sim, on the horse-bot, in your last issue of the JOURNAL.

Perhaps a few friendly criticisms from one who has also followed very closely the life-history and habits of the fly in question may tend in some slight degree, to enhance the value of the contribution.

Horses, whether turned out at grass or working in the fields, do not take the least notice of these flies hovering about them; they certainly do not induce the semblance of fear or of excitement, giving us, therefore, ample reason for re-opening the controversy between MacLeay and others and Bracy Clark, some seventy years ago, whether the "οἶστρος" of the ancients was the same as the fly that is now classified "*Œstrus*."

There can be no reasonable doubt but that the Greek word was meant to signify the large horse-fly or ox-fly, the *Tabanus*; this has a most formidable mouth, and inflicts sometimes most serious wounds on horses, cattle, and man, and its presence will send both horses and cattle into a frenzied state; whereas the bot-fly we are now discussing is distinguished amongst the Diptera as having an obsolete, functionless mouth.

It may be worthy of passing notice that the Latin words *Œstrus* and *Tabanus* have the same meaning—a "gad-fly," "horse-fly," or "ox-fly; and then the Greek οἶστρος, signifying madness, frenzy, is also used to describe the gad-fly, or anything that torments, being an exact description of what is done by the *Tabanus* of to-day; but the harmless *mature*

bot-fly cannot have laid to its charge any of the attributes underlying the name *Œstrus*.

It is very seldom that more than one bot-fly is seen about one horse at the same time, and each female is capable of depositing about one thousand eggs. I have taken the trouble to count them approximately in a fecundated female I happened to kill in my attempt to capture her as she was depositing her eggs.

Naturalists have, years ago, discarded the idea of the horse licking the *ova* off the hairs; as Mr. Sim remarks, they are much too firmly glued on for this to be accomplished.

A reference to Neumann's "Parasites and Parasitic Diseases of Domesticated Animals," translated and edited by Dr. George Fleming, pp. 350 and following, will prove that *then* (1892) the idea was exploded; but "Westwood on Insects," published as long ago as 1840, does not convey the idea of the *eggs* being taken into the mouth of the horse. He says, in vol. ii., p. 577 and 579, "The eggs are deposited by the parent-fly where the *larvæ* may be removed by the tongue of the animal itself into the mouth, and thence into the stomach."

From personal experience, in taking ova from horses at random, and examining them, I have found quite as many *empty shells*, still adherent to the hair, as those that are still unhatched. Only a few days ago, I found some empty "egg-shells" still on the hairs, and on a piece of skin, the hairs on which are thickly studded by the eggs, and which I have preserved for illustration, there are about equal numbers of empty egg-shells, and eggs still containing larvæ.

The eggs are always found clustered in greatest numbers on the inner and back part of the knee-joint.

Mr. Sim's experiments, proving the length of time the larvæ may retain their vitality in the eggs, are profoundly interesting, but it should be taken into consideration that the eggs on which his deductions were based were removed from their natural environments, as he says in his next sentence: "The eggs were so sensitive to heat and moisture that a few whiffs of hot breath never failed to supply a sufficient heat to hatch out a few young bots when required."

In nature, this is what is constantly occurring; the horse bites and licks the hairs on which the eggs are agglutinated, thus hatching out the larvæ, and taking them into the mouth.

To obtain specimens for my microscope, I placed the ova in warm saliva and kept breathing on them for a minute or two, when the larvæ emerged from the eggs.

The larva has *thirteen* segments. Mr. Sim gives the number

as fourteen, no doubt accounting the extrusion of the spiracles from the last segment as one itself. Mr. Westwood gives *eleven* as the number, and Dr. Fleming in his translation of Neumann's work, as thirteen, when the larva is first hatched, and in later stages, after the third moult, as only eleven—I have very carefully examined specimens I have preserved at several stages of existence, and I can distinguish thirteen segments in each.

The first cephalic segment of the newly-hatched larva, which in specimens mounted for the microscope, is almost retracted, has, when extended, the appearance of being studded all over with hooklets; but immediately surrounding the straight, corneous, lancet-shaped mandibles, which are very rarely seen fully extended—there is a whorl of eight larger hooks, arranged in the form of a kedge-anchor, and, like the smaller ones, pointing backwards, thus enabling the creature to obtain a hold whichever side of it happens first to come in contact with the stomach of its host. As there are only two hooks (the homologues of the maxillæ) seem in this position, later in life, it is probable that the extra ones, no longer needed, are "cast" with the first "moult."

From the second to the sixth segments there may also be seen, with a higher power of the microscope, a row of small bristles behind the double row of hooks, which, by-the-bye, surround the *anterior*, not the *posterior* borders of the first ten segments, as described by Neumann and other writers.

In one batch of larvæ I have, that was taken from the stomach of a horse in the month of November some five years ago, there is scarcely any evidence of hooklets on any part of the body (except the maxillæ). I take it these were about "moulting"—at this stage of their existence the larvæ are a bright blood-red colour.

The anchor-like arms of the last segment mentioned by Mr. Sim are the extended extremities of the two spiracles, they will be found to communicate with two large air-sacs from which branches containing air are distributed to all parts of the body.

One other fact of immense interest as illustrative of the futility of attempting to rid the host of these parasites by medicinal agents is worth recording.

In one of my jars I have a piece of stomach with the bots *in situ*, taken in the month of June, as they were about leaving their winter's quarters. The piece of stomach, with bots attached, was first soaked in cold water for three days, and then placed in a 1 to 400 solution of perchloride of mercury,

and after being four days in this, there were still signs of vitality in some of them. Some allowance must be made for the fact, that as they were about undergoing their change from the larva to the pupa stage, their outer skin was becoming insensitive to external influences, preparatory to hardening to form the pupa case; but I think it should prove conclusively, that these are, in nature, practically beyond the reach of vermifuges.

I have noticed invariably that when the male fly emerges from the pupa as the perfect imago, and when the drying process is completed, he stands still, and keeps up a continuous buzzing, the wings all the time will be seen to be absolutely motionless, and the sound is produced by the "halteres" or balancers, the vibrations of which can be distinctly seen.

From having found these bots frequently in the stomachs of horses that have died from the results of accidents, and in the pink of condition, and the best of health, I must le a the side of those who do not regard their presence as generally baneful.

I would refer your readers to Dr. Fleming's translation of "Neumann's Parasites, etc.," for a description of this, and other varieties of the gastrophilus. I have only reared two, the *G. equi*, and the *G. hæmorroidalis*.

---

## TUBERCLE OF HORSE.

BY JOHN HUTTON, ESQ., F.R.C.V.S., KELSO.

ON September 18th last I was called to see a Clydesdale colt, and found the animal suffering from a swelling on the inside of the right thigh extending to sheath and perineal region, where there was very considerable œdema. Thinking that pus would form, I ordered the parts to be well fomented twice a day, and as the temperature was 104F., I prescribed soda sulph. and pot. nitr. in the drinking water twice a day. The horse was feeding fairly well, but was beginning to lose flesh. I diagnosed the case as irregular strangles. I saw the colt again on 26th September, when the swelling was still hard, and the surroundings much the same. October 5th—Swellings of sheath, &c., much less, but that of thigh still hard and somewhat increased in size.

I was informed that the animal would occasionally show signs of abdominal pain more or less severe. and lasting only a short time. The temperature still kept at about 104F.

From the evidences of abdominal pain, from the continued high temperature, and from the progressive wasting, I now formed the opinion that the animal was suffering from some organic disease, such as abscess or tumour of some of the abdominal organs, and told the owner that I did not think that his horse would recover, but asked to be informed if the swelling got any softer.

I saw the case again in about a week, when I found the patient still losing flesh, the pains more frequent and more severe, the temperature still about 104. The colt was seen at intervals of a week until his death on November 11th. A fortnight before he died another swelling began to form on the other side of the sheath and grew rapidly, and got nearly as large as the first. On November 8th septic pneumonia set in, to which the animal succumbed.

*Post-mortem* examination held November 12th. Heart apparently healthy; lungs in a condition of intense inflammation, full of blood, and nearly black in colour. Liver slatey-blue in colour; irregularities on its surface, and consistence of the organ greatly increased. Mesenteric glands all were hypertrophied, they varied in size from a pigeon's egg to a turkey's. Stomach and bowels seemed healthy. Spleen was in itself apparently normal in size and structure, but depending from its surface was a very large tumour. Adhering to the bodies of the lumbar vertebræ, between the kidneys, was another very large tumour; it was most extensive on the left side, where it involved the structures leaving and entering the kidney. There were two similar but smaller tumours in each groin. On the brim of the pelvis there were two abscesses, one on either side, each of which contained a quantity of inspissated pus.

*History.*—The subject was a bay Clydesdale Gelding, belonging to Messrs. Scott & Sons, Maistudie, two-and-a-half years old. He was in good condition when turned out to grass about the beginning of the summer. Shortly afterwards, however, he seemed to have caught a cold, and coughed more or less during the whole summer. No notice was taken of this until about a month previous to my being called in, when the colt was put under cover during the night. The swelling in the right groin was then just beginning to form, and he was slowly losing condition; apart from this he seemed all right, and was a very well-grown colt. His dam had a very bad attack of laminitis shortly after he was foaled, but he seemed to do well, and was a very good colt when I castrated him as a yearling, and he did well after the operation.

[The tumour involving the kidney as well as the spleen with its tumour were examined, having been forwarded by Mr. Hutton. The kidney tumour weighed ten pounds, the ureter compressed by it was greatly dilated next the kidney, as also was the pelvis of the kidney, the organ itself being greatly enlarged. On section the tumour showed branching masses of very pale pinkish tissue, enclosing islands of caseous material.

The spleen tumour was smaller, but its structure was quite similar to that involving the ureter. On section the spleen, which was of normal size and consistence, seemed healthy; the malpighian bodies, perhaps, more prominent than usual. Cover-glass preparations of the softest part of the caseating mass, stained by the Zuhl Neelssen method, showed myriads of the tubercle bacilli, arranged, as is usual, when they attack the horse singly and in big rosettes.]

## FOREIGN BODY IN THE PHARYNX OF A DOG.

BY NEMO.

An aged Airedale terrier was brought to the College for treatment, and exhibited the following symptoms:—The animal is dull, and occasionally holds the head on one side, in the position assumed by dogs suffering from canker of the ear. Complete loss of appetite, inability to swallow. A little glycerine administered was immediately rejected, and produced coughing and retching. The dog stood on its hind legs and violently scratched its jaws and face with its fore feet. It lay on the ground, and, putting its head between its fore-paws, tore the sides of the face with them as if it would scratch its eyes out. There was very little salivation. A careful and prolonged examination of the mouth and pharynx was made, but nothing was found to account for the symptoms. The dog was rather violent, and a narcotic was given, in the form of a strong dose of chloral, preparatory to passing a sound into the stomach. On again exploring the pharynx, after pulling the tongue well forward, a thin, hard substance was detected sticking out of the very back of the tongue on its left side. Pulling the tongue well over to the right side, and as far forward as it could be, after a little manipulation with the index finger I brought out a piece of black sewing cotton and a needle. The point of the needle had pierced the tongue in the position indicated above, and subsequent jaw movements and expulsatory efforts had driven it into the organ almost up to the eye. The cotton had been swallowed. Immediate cessation of the symptoms and recovery followed the removal of the offending body.

## INFLUENZA WITH PECULIAR PREMONITORY SYMPTOMS.

BY NEMO.

OCTOBER 2ND, 1895. Called at night to attend a horse which the messenger said was suffering from colic. Found the animal, which had just come in from work, showing symptoms of mild abdominal pain, curling the tail, attempts at lying down, looking round at the sides, inappetence, pulse 45, temperature 100·3. As well as the colicky symptoms I noticed that the lower part of the face—about the nostrils and upper lip particularly—was greatly swollen. Swelling about the eyes; the left one was completely closed by the œdema. On the trunk and upper parts of the limbs, weals, some as thick as the finger, some as thick as the wrist, and on different parts of the chest and abdomen big diffuse patches of œdema.

Diagnosis: Urticaria from intestinal catarrh. Gave a colic draught and a pint of oil, and left instructions that I was to be called if the pain returned. (The horse seemed free from pain soon after getting the draught.)

Next day on visiting the patient I found that all the swellings had disappeared, the appetite had returned, and perfect recovery seemed assured. Left some bicarbonate of soda powders to be given night and morning. Pulse and temperature were now normal.

The following day to my astonishment I found the horse with a temperature of 105, pulse 55, respiration accelerated, anorexia, prostration, and the other symptoms of influenza, and a bad attack of this disease developed. The temperature remained between 105 and 106 for a week; after that the animal gradually recovered, and was at work again in three weeks.

---

## HUISH INSTRUMENT CASE.

WE have received, through the courtesy of Mr. Huish, a very compact and well-arranged instrument case. It contains an excellent assortment of instruments, four knives fitting into one handle, scissors, forceps, probe, director, needles, suturing material, all contained in a metal case. Everything is of metal, there is no wood, horn, or leather, so that asepsis is easily obtainable. We have great pleasure in recommending it to our readers. The price is moderate.

## THE SIXTH INTERNATIONAL VETERINARY CONGRESS, HELD AT BERN (SWITZERLAND), SEPTEMBER, 1895.

(*Continued from page* 324.)

WE again abridge from the *Berliner Thierärztliche Wochenschrift* the report of the Congress as follows :—

The fifth sitting (20th September), at which Professor Berdez presided was a long and anxious one, occupying altogether eight hours. The first subject of discussion was pleuro-pneumonia, and a great number of papers bearing thereon had been sent in from nearly all the countries of Europe as well as from America, but as the greater number of the writers were not present and as the members present had had the opportunity of reading the printed papers, Dr. Hirzel of Zürich gave a summary of them to the meeting. The general drift of the papers, he said, was decidedly in favour of a complete destruction of affected herds; only by such vigorous measures could one hope to become master of the disease. In the discussion which followed, M. Leblanc said that, while agreeing generally with Dr. Hirzel, he thought inoculation might be advisable in special local circumstances. Dr. Willems of Hasselt (Belgium), of course, manfully defended his system of inoculation but he found no supporters, whilst the contrary opinion was received with loud applause; indeed, no question that was before the meeting received such thorough approval, the members being practically unanimous. Dr. Lothes explained the mode of operation in the Rhenish Provinces in the case of an outbreak of pleuro-pneumonia. The whole herd is valued and if the owner is willing to slaughter it at once he receives 20 per cent. of the value from the fund set aside for that purpose. The owner cannot be compelled to slaughter the animals, but no one has as yet refused to do so, for, although the reduction in value of the slaughtered animals is not covered by the 20 per cent., yet when everything is taken into account the owner finds he gets about 75 per cent. of the total value, and he thinks it better to submit to that than to have an embargo laid upon his animals perhaps for months. Care is, of course, taken to inform the owner that this embargo will be enforced with the utmost severity. This very interesting and keen discussion ended in a recommendation to all Governments to have nothing to do with inoculation for pleuro-pneumonia, but to proceed at once to the extirpation of infected herds.

The last subject of discussion was the treatment of the flesh of tuberculous animals. All the writers of the papers on

this subject were present except Professor Ostertag, of Berlin; these others were Drs. Butel (France), Fleming (England), Guillebean (Switzerland), and de Jong (Holland). It had been anticipated that a sharp controversy would take place on this subject, as it has not been sufficiently expiscated from the scientific point of view, and there are serious difficulties on the side of its practical application. It was expected that a conflict of opinions might take place between French surgeons, as represented by M. Butel, and Dutch surgeons, as represented by M. de Jong, on the one hand, and German surgeons on the other, the Frenchmen wishing, as far as possible, destruction of the flesh in *every* case of tuberculosis, and the Dutchmen, *at least* sterilisation, whilst the Germans wished to limit the comdemnation of flesh, as far as might be practicable. In order to avoid a collision, Dr. Lydtin (Privy Councillor of Baden) had taken the wise and charitable precaution of holding a special meeting the day before, in the hope of harmonizing the contending opinions. The result of these tedious negotiations was a series of motions which were afterwards put to the meeting and adopted.

After the various advocates had stated their case, the discussion began. Mr. Macfadyean stated that opinion in England was divided. He disputed M. Butel's assertion that the flesh of all tuberculous animals was prejudicial to health. The English Commission had decided that after removal of the diseased parts the flesh was quite suitable as food; he did not, therefore, see why it should be destroyed. M. Nocard recommended a compromise (see below), and was personally of opinion that the flesh seldom contained the virus. Even M. Trasbot was of opinion that, although the flesh did, indeed, contain the tubercle-poison, yet this poison was rendered innocuous by the gastric juices. Mr. Nogueira stated that in Portugal the flesh of all tuberculous animals was condemned, and had been so since 1886. In the Lisbon slaughter-houses 5 per cent. of the cattle were found to be tuberculous; the wild bulls for the bull-ring were frequently tuberculous. Dr. Lanzillotti, of Milan, said that in Italy public slaughter-houses were established in 1891; he recommended, with Mr. de Jong, that the flesh of all tuberculous animals be sterilised. Mr. Sigmund, of Bâle, Director of Slaughter-houses, proposed the following resolutions, namely: Destruction of the flesh of all animals generally tuberculous, and, at the same time, emaciated; Sterilisation of the flesh of animals not emaciated, but showing extensive tuberculosis;

Free sale of the flesh of animals showing restricted tuberculosis. M. Chauveau pointed out that so far back as 1868 he had proved, by experiment, the non-poisonous nature of the flesh in itself, but had shown that the lymphatic glands of the flesh, even in well-fed animals, might contain the disease-virus, on which account he had advised that special attention be directed to the lymphatic glands. M. Lorain was against stringent measures as, in his opinion, the flesh was hurtful only when it contained foci of tuberculosis. Dr. Lydtin reminded the Congress that their decisions of former years on this subject had guided the Governments of most States in framing their regulations, and therefore the present Congress must not vacillate. He went on to recall the facts that a hundred years ago tuberculous flesh had been everywhere excluded from public consumption; then opinions had changed, and about the middle of this century regulations had been framed for its use; then Koch's discoveries had once more turned the current of opinion against it. The destruction of all tuberculous flesh, he said, though in itself desirable, was impracticable, but everything distinctly dangerous to public health must be prohibited. Koch had once said that whatever is disgusting is dangerous to health. Mr. Edelmann was against obligatory sterilisation; in Dresden 1,200 out of 6,900 cattle were found to be tuberculous, but 90 per cent. of their flesh was sold to the public. M. Morot said that sterilised flesh soon decayed and stood in bad reputation with the public. The following resolutions were adopted: (1) That the Congress recommend all Governments to institute compulsory inspection of meat; (2) That the flesh of all tuberculous animals ought to be subjected to special regulations; (3) When these regulations lead to condemnation, the owners must be suitably indemnified, if they submit to the provisions of the laws then in force (last clause M. Nocard's); (4) Condemnation occurs when the lesions, by their extent and character, give suspicion of being dangerous to health (eight members voted against this); (5) Condemned flesh must not be sold as food [Flesh is to be condemned (*a*) When the animal is emaciated; (*b*) When the flesh has a bad appearance; (*c*) When tuberculous lesions are found in the muscles; (*d*) When serious lesions are found in several of the viscera (18 members voted against this.)]; (6) The flesh of tuberculous animals, if intended for food, ought to be sterilised to an extent proportionate to its condition, and that, if possible, in places specially appointed for the purpose (adopted by 57 votes to 35); (7) Governments are respectfully

requested to provide sterilising apparatus. A further motion by M. Trasbot was accepted with acclamation, namely, that in every country a Commission be appointed to settle the principles on which veterinary inspectors of slaughter-houses shall permit the flesh of tuberculous animals to be sold for food, that is, whether they are to condemn it partially or altogether.

We would point out that resolution 5 (*d*) is extremely noteworthy, as it deals with those cases, still disputed, in which there is, even in well-nourished animals, tuberculosis of several of the viscera, or, in other words, of the ventral cavities; here the difficulty will be found of fixing regulations to be everywhere binding, and of avoiding complaints about condemnation. The resolution speaks of "serious" lesions in the viscera (not organs), but it will be for the expert to decide what lesions are serious enough to justify condemnation; thus the Congress gives no directions for the settlement of these doubtful cases. The Congress gives likewise no precise directions for the sterilising of meat, but merely advises that this be done according to circumstances. This matter is of much importance, as sterilisation differs but little from destruction, only a fraction of the value being saved thereby. Public attention ought to be directed to this aspect of the question. It is noteworthy, also, that the Congress pronounces distinctly in favour of compensation. Of course, this must not be mere mutual insurance amongst stock-owners, as in the case of glanders and pneumonia, whereby the loss is simply spread over the whole body of agriculturists. With regard to tuberculosis the case is different. Seeing that this disease in cattle has such an ominous significance for humanity, the struggle against it must be regarded as no mere agricultural question, but as one that affects the whole community, and the attack must be made with the help of State funds.

---

## CHLORIDE OF BARIUM.

BY NEMO.

THE treatment of colic (due to impaction of the bowel by accumulation of fæces) by the intravenous injection of barium chloride, which has recently been recommended by Dieckerhoff, is the application in practice of a very well-known action of the drug in question. In Lauder Brunton's "Materia Medica," page 646, it states that, "when injected into the

circulation, it causes contraction of the involuntary fibres of the bladder and intestine, so that the lumen of the latter may be almost completely obliterated." The following record of three cases in which it was tried may be of interest:—

Big aged cart gelding admitted to the New Vet. Col. Infirmary, suffering from a very acute attack of colic; the animal had been attacked four hours before admission. The usual treatment (sedatives, fomentations, enemas) having failed to relieve the symptoms, chloride of barium, 11½ grains, dissolved in 80 drops of distilled water, was injected into the jugular. Ten minutes afterwards the animal stretched himself to the full extent (assumed the position so characteristic of Hackney stallions in the show ring), remaining thus postured for some time. There were loud borborygmal sounds, soon flatus, and, directly afterwards, a little fæces were expelled, the latter with force. In twenty minutes from the time of administration, the patient passed small quantities of fæces five times. Ten hours after admission the animal died, and on *post-mortem* examination, there was found acute inflammation of the small intestines, their contents being bloody, and the walls of the bowel greatly infiltrated. The colon which contained a large quantity of ingesta was ruptured close to the cœcum.

A St. Bernard dog with an inveterate skin disease was sent for treatment with instructions that if no marked improvement occurred in a short time it was to be destroyed. Confinement in kennel produced constipation, and chloride of barium gr. 2½ dissolved in 30 drops of distilled water was injected into the jugular. In five minutes I noted acceleration of respiration, colicky pains, lying down and rising frequently, Hackney stallion posture (most marked in this case), ten minutes after the injection defecation commenced accompanied by much tenesmus, and the dog passed fæces in smaller or larger quantity 12 times in half-an-hour. In an hour he seemed all right, and was destroyed by one drachm of Scheele's hydrocyanic acid. *Post-mortem:* The intestines entirely empty. The last part of the colon was contracted and incompressible, it felt almost like a piece of tendon.

Old pony (a dissection subjection), received by intravenous injection 10 grs. of barium chloride. In ten minutes he was sniffing about on the ground, curling the tail, looking round, lying and rising, rolling over. Soon he began to pass flatus and fæces, and defecated six times in half-an-hour from the exhibition of the dose. In an hour he was himself again.

# Editorial.

THE readers of the VETERINARY JOURNAL will find in our correspondence columns, a letter from Messrs. Brand and Bowes, M.R.C.V.S., Leeds, bearing on a prosecution instituted against them by the Society for the Prevention of Cruelty to Animals, for cruelty to a horse. The case is one of some interest and importance to veterinary surgeons, as it shows the dangers that overshadow them in their professional work. Not only from the misdirected zeal of the officers of the Society, but also from a source that it pains me to point out—from members of their own profession. Messrs. Brand and Bowes, acting to the best of their judgment, ordered a patient suffering from mange, that unfortunately had been cast in its stall on the night previous to its removal, to be walked quietly a distance of 4½ miles to a grass field. Some distance from its destination the horse collided with another and fell. The evidence of the man leading it was that two of the Society officers pounced upon him, who would not allow him to lift the horse or give him any assistance to do so. That a horse may be in a weakened state from illness and still perfectly able to walk quietly, indeed, sometimes beneficially, is the experience of all practitioners, but, that while in transit an unforeseen accident to a patient should render men of blameless character and high professional reputation, as was the case in this instance, liable to an odious prosecution for cruelty, should and does evoke my warmest sympathy with them as a professional brother.

While being in full accord with the motives that are the *raison d'être* of the society, its methods I cannot always agree with, and it is a moot point whether it should be permitted to harass any professional man, by raising these frivolous actions with impunity. It is a question that should be submitted to a legal test.

Judging the merits of the whole case as published in the daily prints, I am of opinion that no cruelty could be laid to the charge of Messrs. Brand and Bowes. I must express my regret and surprise that, on mere hearsay evidence, a veterinary surgeon should have been found who endeavoured to aid the prosecution to inflict, what would have amounted to a very serious injury to those gentlemen, his professional brethren, whom I heartily congratulate on their victory.

---

THE Editor begs to refer "Inquirer" to the reprint of "The Charter of the Royal Veterinary College of Ireland,

1895," in this issue of the JOURNAL. He is not in a position to afford any further information on the matter.

The Editor, being anxious to gain further information on "Redwater" in cattle, will feel much obliged to his professional brethren, if they will communicate with him regarding this disease.

---

## Proceedings of Veterinary Medical Societies, etc.

### ROYAL COLLEGE OF VETERINARY SURGEONS.

A MEETING of the council was held on Saturday, the 9th ult. Present:—Mr. James F. Simpson, President, in the chair, Professors Dewar, Edgar, McFadyean, McCall, Penberthy, Pritchard, and Shave; Messrs. Abson, Bower, Dollar, Elphick, Fraser, Hartley, Hunting, Kidd, Locke, Mason, Mulvey, Trigger, Wragg, and A. W. Hill (Secretary).

The SECRETARY read the notice convening the meeting.

On the motion of Mr. FRASER, seconded by Professor MCCALL, the minutes of the previous meeting were taken as read and confirmed.

*Correspondence—The Pharmaceutical Society.*

The SECRETARY said that Mr. Thatcher the solicitor, had received a letter from the Pharmaceutical Society of Great Britain stating that a conference was going to be held in connection with a deputation to the Board of Trade, *re* the Companies' Acts Amendment Bill, and asking Mr. Thatcher to get himself appointed to represent the College, together with the President or other members of the Council. Mr. Thatcher now wrote to the College saying that he did not think there was any necessity to appoint him as a delegate as that had been done at a Council meeting some time back, and he presumed his appointment remained. He thought, however, that it would be as well that the matter should be brought before the Council in order that he might receive formal authority.

The PRESIDENT: I am afraid I am not in a position to explain thoroughly the object of this deputation to the President of the Board of Trade, but I am sure that the Pharmaceutical Society, as well as ourselves, desire to do away as much as possible with the formation of companies which give to themselves all the powers which individual members of our profession, or the pharmaceutical profession retain, though the members of those companies have no qualification whatever; in other words these companies start under the belief that although we may proceed against individuals we cannot proceed against them as companies. I think you will consider it advisable that there should be some representative from this Council to attend as a deputation with the Pharmaceutical Society. I certainly think that as the solicitor is so well acquainted with all the details he ought to be the one to represent us.

Mr. ABSON: Is this not a subject which ought to be taken up by the medical profession equally with ourselves?

The PRESIDENT: It is being taken up by them.

Mr. HUNTING: I propose that the President be our representative, and as I have heard no suggestion whatever in favour of the solicitor being sent, that the President go by himself. Veterinary surgeons so far have not one single complaint to make of any company formation. Both the other bodies have complaints to make, and all the talking will be in their hands.

Professor PENBERTHY seconded Mr. Hunting's proposition.

The PRESIDENT: Is there any amendment?

Professor EDGAR: I propose as an amendment, "that the solicitor be asked to attend with the President."

Professor MCCALL seconded the amendment, which was agreed to.

*Postponed Examination Fees.*

A letter was read from a student saying that he was unable to appear at the May examination through illness, and asking if his fees might hold good for the Christmas examination.

Mr. HARTLEY moved "that on the production of a medical certificate to the effect that he was unable to present himself in May in consequence of illness, this student be allowed to present himself for the Christmas examination without further fees."

Professor MCFADYEAN seconded the motion.

Mr. HUNTING moved as an amendment, "that the student be allowed to present himself in December at the Christmas examination without the production of any certificate."

On this amendment being put, it was declared to be lost; and the original motion was agreed to.

*British Institute of Preventive Medicine.*

A letter was read from the British Institute of Preventive Medicine pointing out that they had not received any official notification of the grants made by the College and some of the veterinary societies, and asking whether it was necessary to make any further application for them.

Mr. HUNTING explained that the reason they had not acquainted the Institute with the vote was because they were expecting to receive other grants from different veterinary societies, and he moved that the Secretary be instructed to write to the British Institute of Preventive Medicine informing them that the Council intended to contribute £100 and that it was waiting to receive certain expected donations from other veterinary societies and that the Institute would be communicated with before the end of the year.

Mr. LOCKE seconded the motion, and suggested that the Secretary should write to all the societies asking if it was their intention to subscribe. Agreed to.

*Examiners' Specimens.*

The PRESIDENT: We now have to consider a letter from Captain Smith in which he says that a year or two ago the examiners in class B were asked whether there was anything in the shape of specimens and material which they would like the College to provide for their examinations. He says he has consulted with his colleague, and he now asks for a microscope, a box of histological specimens, and an artist's lay model of a horse for the purpose of examining on locomotion; and whether there is any objection to the histologists being furnished with microscopic material which can he taken from school to school.

Mr. HARTLEY: I beg to propose that these things be bought for the use of the examiners if the cost of the model is not excessive.

Mr. DOLLAR: I will second that. I do not think the total cost would exceed £12 or £14.

Mr. HARTLEY: I will add to my proposition that the sum is not to exceed £15.

Mr. ELPHICK: I move as an amendment that the matter be referred to the Examination Committee, with power to act.

Professor MCCALL: May I ask if Captain Smith has been refused microscopes at the College? I am not aware of it. We could give him a dozen microscopes and any number of specimens.

Professor PRITCHARD: I should propose that the examiners provide their own microscopes.

Professor DEWAR: I do not see any use in providing microscopes at all I do not think any school would refuse to supply the examiners with them, they can have a dozen if they like.

Professor SHAVE: I second Professor Pritchard's proposal that the examiners provide their own microscopes and microscopic specimens. The examiners have to examine, and I think they should provide themselves with the necessary instruments.

The PRESIDENT: I will now put Mr. Elphick's amendment:—"That the matter be referred to the Examination Committee, with power to act."

On this amendment being put to the meeting, it was declared to be carried.

Professor PRITCHARD'S amendment was then put and lost, and Mr. Elphick's amendment was carried as a substantive proposition.

The PRESIDENT: We now have to consider a letter with reference to the circular which was received from Mr. Lynch in Ireland. It will be within your recollection that you instructed the Secretary to send the whole of the correspondence, or rather to send the circular received from Mr. Lynch, to the Board of Agriculture. That was done, and we have received a letter from the Board of Agriculture stating that it has nothing to do with it, and that it had better be sent to the Clerk of the Council, Veterinary Department, Privy Council Office, Dublin Castle. I thought it better that we should take your wishes on the matter, because this gentleman holds an appointment in Ireland, and may not care to have his letters sent to Dublin Castle.

Prof. PRITCHARD moved that the correspondence be returned to the writer of the letter, together with a copy of the letter received from the Board of Agriculture.

Prof. MCFADYEAN seconded the motion.

Mr. LOCKE moved as an amendment that the letter be sent to Dublin Castle.

Mr. FRASER seconded the amendment, which was agreed to.

*Appointment of Secretary to the Board of Examiners for Scotland.*

The PRESIDENT: We now have to proceed to the appointment of a Secretary to the Board of Examiners for Scotland. Perhaps, however, if the Chairman of the Examination Committee sees no objection, it would be as well that you should know what the replies of the examiners and the late secretary were to the letter which you instructed our secretary to write to them with reference to their acquiescence, or otherwise, in the suggestion that was made that we should allow the matter in connection with the unfortunate business to drop.

Prof. MCFADYEAN:—I submit that there is no cogent reason why this should be taken before we proceed to the business which comes next upon the agenda.

THE PRESIDENT: I thought it would clear up the whole matter if you had this correspondence now, otherwise at the present moment the members of the Council will not know whether our late secretary has been improperly blamed, or whether our examiners have been improperly blamed.

The correspondence was then read, consisting of letters from Mr. Rutherford, Prof. Williams, Dr. Fleming, Vet.-Capt. Smith, and Dr. Peacock.

The PRESIDENT:—We will now proceed to the appointment for a secretary to the Board of Examiners for Scotland. You are aware that the fact of a vacancy having occurred was advertised. Applications have been received from the following gentlemen:—Mr. Rutherford, Edinburgh; Mr. McIntosh, Dalkeith; Mr. Gray, Edinburgh; Mr. Crichton, Lisburn, Ireland; Mr. Baird, Edinburgh; Mr. De Jong, Edinburgh; Mr. Millar, Partick; Mr. Hill, Glasgow; Mr. Anderson, Glasgow; Mr. Frew, Glasgow; Mr. Player, Edinburgh;

Mr. Danbar, Aberdeen; and Mr. Golden, Eastbourne. Will you proceed straight away to the ballot, or does anyone wish to urge the claims of any of these candidates upon the notice of the Council?

Mr. TRIGGER:—I move that we go straight away to the ballot.

Mr. MASON seconded the motion, which was agreed to.

Prof. DEWAR:—There must be many members of the Council who know nothing as to the qualifications of these candidates. Have there been any testimonials or qualifications sent up to the Council?

Prof. PENBERTHY:—It is not necessary.

Prof. EDGAR:—Will there be any opportunity of discussing the relative merits of the two men who are at the top before you finally decide?

The PRESIDENT:—Yes, if it is your wish. The person obtaining the highest number of votes will not necessarily be elected. He must have a majority of the members present in his favour.

A ballot was then taken, with the following result:—Rutherford, Baird, De Jong, Player.

The PRESIDENT:—Mr. Rutherford heads the list, but a second ballot will be necessary because there has to be a majority of the members present.

On a second ballot being taken, the voting was as follows:—Rutherford, Baird.

The PRESIDENT:—I declare Mr. Rutherford to be elected.

*Proposed Deputation to the Board of Agriculture.*

The PRESIDENT:—The next business is to approve or alter a draft representation to be made to the Board of Agriculture by the deputation appointed by this Council. You are aware that you appointed Mr. Hunting, Mr. Kidd, and myself, as a deputation to wait upon the Board of Agriculture with reference to the arrangements now existing at the Animals' Department of that Board, and we desire on account of the many and sometimes extreme views entertained by members of the profession, to consult you before making our representations. There are members who desire an alteration in the name of the Department, there are those who desire not only an alteration in the name but also in the direction of the department, and there are other views entertained which would carry us much further. We therefore ask you whether you approve of our representing merely that the profession is desirous, (1) that the Veterinary Department be restored; (2) that the Department be under the direction of a veterinary surgeon; (3) that another member be added to the professional staff. It is for you to say whether we have proposed too much or too little.

The SECRETARY read the Report, as follows: "The Committee again consulted to-day, and should the Council approve of the recommendations, they are prepared to submit their reasons to the Board of Agriculture for the suggested alterations being made, and meanwhile they request the Secretary to write to the Rt. Hon. W. Long, the President of the Board of Agriculture, as to a convenient date to receive the deputation."

Prof. PENBERTHY: I would suggest that the last proposition should be "That the Veterinary Department be strengthened," not that one member should be added, or ten, but that it should have whatever strength is necessary. With that alteration I move that the suggestion of the members of the deputation be adopted.

Mr. HARTLEY seconded the motion, which was agreed to.

*Compulsory Notification of Contagious Diseases.*

The PRESIDENT: I have to report to you that in accordance with your wish the Secretary issued 2,758 circulars to members of the profession asking them

to intimate in their reply, which was to be made at an early date, whether they approved or disapproved of the adoption of the compulsory notification of contagious diseases in animals. To the circulars sent out, 787 replies have been received. They may be classified thus: Notices returned in favour of adopting the Act 588, but some on certain conditions; notices returned not in favour of adopting the Act unconditionally 147; notices returned not in favour but conditional 38; notices returned where no opinion whatever has been given 13. Total, 787.

Mr. HUNTING: Can you tell us about the conditions?

The PRESIDENT: The unconditional we need not refer to. These are classified as near as they could be got at. Fourteen members say that they are in favour, providing that qualified veterinary surgeons are employed to carry out the work; two are in favour, provided that the duties of inspection are confined to members of the profession; ten are in favour, provided adequate fee for notification is paid; seven are in favour, provided that every M.R.C.V.S. is appointed inspector in regard to their own cases; six are in favour that notification and inspection be carried out throughout the district councils and imperial veterinary officers and revision of the whole of the animals' department.

Mr. HUNTING: What does that mean?

The PRESIDENT: I do not know. There are six, at any rate, of that mind; five are in favour provided glanders and farcy only are dealt with; six are in favour if the interests of veterinary surgeons are justly considered; three are in favour provided that compensation be given to owners; and two are in favour if the matter is taken out of the hands of the council. I do not know what council they refer to. Then there are 5 which are difficult to classify, and they are classified as "conditional." Those not in favour of compulsory notification:—147 need not be dealt with; 22 were opposed to it under the existing regulations of the Board; 8 are opposed to it, giving many reasons against; 1 opposed to it except in cases of glanders and farcy; 2 practitioners think that clients' notification ought to be quite sufficient; 2 say reasonable compensation to owners is essential; 2 say they would not adopt it unless the inspectors to whom notification has to be made are veterinary surgeons not in private practice; 1 opposed it unless the M.R.C.V.S. be an inspector in his own practice and notify direct to local authorities. That deals with the 185 classified as against. I have a letter from Mr. Godfrey who lives in the Channel Islands, in which he says he is in favour of compulsory notification, but the Act would have no effect there unless the Channel Islands were specially mentioned. Then we have a letter from Mr. Gibbings, also in favour of the principle of compulsory notification, but he hopes that before the Council expresses an opinion on the adoption of such an Act they will make themselves acquainted with some particulars relative to its professional working. The superintendent of police acts as local inspector, and the services of veterinary surgeons are seldom called into requisition unless a prosecution is imminent. The fees allowed are miserably inadequate; and possibly if such an Act were adopted we should suffer the humiliation of being compelled to notify to police officers against our clients' wishes. Mr. Faulkner writes saying he is unable to answer our question either in the affirmative or negative, because, (1) The two professions, the medical and veterinary, are not identical in this respect; (2) The anomalous regulations at present in force *re* Glanders and Farcy Orders; and (3) prospective orders *re* Contagious Diseases of which we at present know nothing. Mr. Stephenson writes saying he is not in favour of the notification of disease; (1.) Because it will place veterinary surgeons more in the hands of county councils, who now employ policemen and other non-qualified persons to act as inspectors under the Contagious Diseases (Animals) Act, to the loss and prejudice of

qualified men; (2.) The proposed fees, in all probability, will be so small that they would not be worth the trouble, and after the certificate of disease was issued, all other work in connection with the case would be carried out by laymen, as it is by the county councils in connection with sheep scab, police officers often declaring a case of sheep scab, and only calling in the veterinary surgeon when they require his certificate to produce in court. He trusts the Council will do all they can to defeat the proposed change. I have also a long letter from Sir Henry Simpson. He says that he is of opinion that an intelligent public will before long force notification of contagious diseases upon the legislature, but that it would be unwise of the Council to assent or dissent immediately, as they should take advantage of the very favourable opportunity presented by the Board's letter to formulate a demand or request for the question of the status of veterinary surgeons in relation to contagious disease, to be fully considered. Reasons for the suggested alteration should be drawn up by the Council, and submitted to various M.P.'s, some of whom should form a deputation to the Minister of Agriculture on the subject. Should the Council think well to accept notification, some conditions should be added, and amongst them: (1.) The R.C.V.S. shall be consulted as to what diseases shall be termed contagious diseases, just as they were by the Royal Commission with regard to hereditary diseases for horse breeding; (2.) The notice required shall be given to a M.R.C.V.S.; (3.) An owner of live stock shall be bound to take all reasonable precautions that his stock is free from contagious diseases, and shall be liable to a heavy penalty for neglect of such precautions; (4) An owner who neglects to have any newly purchased or received stock inspected by an M.R.C.V.S. within —— days of arrival on his premises, and all other stocks within —— months at least shall be deemed to have failed to take reasonable precautions; (5) The Act (notification) shall be adopted throughout the kingdom; (6) Veterinary surgeons shall hereafter be exempt from serving on juries." With those letters before you, if you think we are in a position to give an answer to the Board of Agriculture with regard to this subject, will someone make a proposition?

Mr. BOWER: As you may be aware, several members met in Norwich to discuss this subject, and the paper was sent to this Council accordingly. They thought they would be giving the Board an opportunity of letting them know that we are dissatisfied with the way we have been treated. I do not think anyone attended that meeting who objected to notify 8 contagious diseases—on conditions.

Mr. TRIGGER: After the course we have adopted, I take it that the Council cannot consistently go in the face of the replies they have received. The majority of those replies are in favour absolutely of compulsory notification, and I think, therefore, we are bound by it. There are some excellent suggestions in Sir Henry Simpson's letter, one of which is with regard to serving on juries. I would suggest that a reply be sent to the Board of Agriculture saying that the Council are, on certain conditions, in favour of compulsory notification of contagious diseases, and that a sub-committee be appointed to suggest what is wanted in return, their report to be laid before us at our January meeting. I will move that a letter be written to the Board of Agriculture saying that under certain conditions we are in favour of compulsory notification of disease, and that the matter be referred back to the General Purposes Committee to formulate those conditions.

Mr. DOLLAR: In rising to second Mr. Trigger's motion, I should like to say that, so far as I can gather, the results of this circular which has been issued, is merely to show that a certain proportion of the members of the profession, amounting apparently to one-sixth, is in favour of compulsory notification. I think it is our duty, however, not to stop at the acquiescence or refusal on the part of the members, but to add, so far as we possibly can from our own

stores of knowledge and experience, those safeguards which are likely to benefit us when we are called upon for our reply to the Board of Agriculture. I certainly agree with Sir Henry Simpson that the time has now come for making our views heard in connection with certain points which have been proved to be a source of great vexation to us in the past, and I think it would be a great oversight on the part of this body, did it neglect to take advantage of it. I am of opinion that Sir Henry Simpson's suggestion that the Act be general, and not local, should receive our best attention. A further point, and one which, I venture to say, is of very great importance indeed, both to country and town practitioners, is this, we all, unfortunately, know that in the past our experience with contagious diseases, like glanders, has not always been of the happiest. We have a case which shows no external manifestations, and it is sent away for slaughter quite unsuspectingly. It is detected at the slaughter-house by the inspector, and, in my own particular case, the following has happened—the owner has been warned that he sent away a glandered horse, and that he is liable to a penalty of £20; but the Central Authority has not stopped short there; it has further served a notice on the veterinary surgeon in attendance (in this case myself), warning him that if in future such action should again arise, he will be held responsible for it, and that he had better be careful in what he does. In my own case, I did not wait until further attacked, but I attacked the Central Authority, and I am glad to be able to say that I extracted from them an apology and retraction. This, however, is not always the fate which the unfortunate veterinary surgeon meets with. It is frequently a man of not much means and unable to fight, and the authority which knows very well the facts of the case either ignores him altogether or continues its threats, which they know he cannot resist. I therefore think that in any Act provision should be made for some protection to the veterinary surgeon. The suggestion has been made by a very eminent authority, who has considerable experience in these matters, that a veterinary officer in each district should be appointed who should do no other practice. That would certainly be one way of relieving us of great anxiety. As you all know, the real cause of friction arises from the inspector endeavouring to use his position to the disadvantage of his professional brethren who are obliged to resort to him. If he were deprived of the power he is provided with, that temptation to abuse his position would be removed. The suggestion that we should endeavour to obtain immunity from serving on juries has my heartiest sympathy.

Mr. HUNTING:—I have an amendment to propose to Mr. Trigger's motion, viz., that the matter be referred back to the General Purposes Committee, that they be asked to draw up a letter to the Board of Agriculture expressing our general approval, but stating the conditions under which it would be most acceptable, and that that letter be submitted to the next meeting of Council.

Prof. EDGAR:—I should like to support Mr. Hunting's amendment, on the ground that there are one or two important points to which this matter would have no application, and especially bearing on glanders. For instance, I have private information of a man who possessed seven or eight horses of great value, worth £50 or £80 each. Those horses have been exposed to the infection of glanders and have re-acted to mallein, and having great confidence from a considerable experience of mallein. I should conclude that those horses are glandered. I conld not give a positive opinion, as an inspector or as a private individual, that they are not absolutely sound, because they would pass any test of soundness you might like to put them to. We ought to have some understanding in our official position as to what is to be done with regard to mallein in this matter, because the Board of Agriculture and the County Councils refuse to recognise the test as diagnostic, and we

should be open repeatedly to the charge Mr. Dollar has been subjected to. We only know privately that these horses have reacted to mallein. The County Council know nothing about it until they are shown clinical evidence. This matter has a very important aspect when its details are encountered in practice.

The PRESIDENT: Mr. Trigger's motion is withdrawn, and Mr. Hunting proposes that the whole matter be referred to the General Purposes Committee to report to the Council at the January meeting, and in that report the conditions upon which we should accept the Act are to be mentioned.

The motion was then put and carried.

*Examination Committee.*

The SECRETARY read the report of the Examination Committee from which it appeared that letters from the examiners and Mr. Rutherford had been laid on the table with reference to the subject of the friction at the recent examinations in Scotland, stating that in accordance with the wishes of the Council all parties had consented to willingly let the matter drop.

Mr. MULVEY: I beg formally to move the adoption of the report.

Mr. MASON seconded the motion, which was agreed to.

*Committee on Bovine Tuberculosis.*

The report of the Special Committee on bovine tuberculosis was read. It recommended the Council to lay before the Board of Agriculture the fact that the veterinary profession considered the time had arrived when tuberculosis should be included in the Diseases of Animals Act.

Mr. HUNTING moved, and Mr. MASON seconded, the adoption of the report.

Professor MCFADYEAN: Does the report mean that tuberculosis is to be scheduled and treated like swine-fever and glanders by slaughter of suspected animals and compensation?

The PRESIDENT: First of all to get this disease recognised as infectious, and scheduled.

Prof. MCFADYEAN: What is the good of getting it scheduled? Until we can recommend something more to the point than that we had better send no recommendation at all.

Prof. PENBERTHY: It must be scheduled first.

Mr. MASON: We have not got it scheduled yet.

Prof. MCFADYEAN: There never was a disease scheduled except in relation to special regulations.

Prof. EDGAR: The Privy Council raised three complete objections to scheduling the disease in 1888: (1) that diagnosis was difficult; (2) that there was great difficulty with reference to compensation of pedigree cattle; and (3) the improbability of the disease being finally extinguished. With the use of tuberculin, if the reaction is reliable, we can now get over the difficulty of diagnosis. On the second question of compensation, no doubt the point has weight with the Privy Council, owing to large herds of valuable pedigree stock which are known to be tuberculous. The main difficulty has been the diagnosis, and as with the assistance of tuberculin we can now claim to be fairly accurate in diagnosing tuberculosis, I propose that the disease shall be scheduled with the accompanying rules that obtain in all other scheduled diseases.

Mr. HUNTING: I cannot support Professor Edgar's motion, because it is too wide. I do not think he quite means that it should be treated as all other diseases are treated, because every disease is treated differently.

Prof. DEWAR: I should like to know what is proposed to be done if an animal brought to a slaughterhouse is found to be tuberculous? Is the farm from which it came to be marked as a suspected farm, or is it to be visited and the whole of the animals tested for tuberculosis, and the herd stamped

out? I have tested herds with tuberculin, and have had 95 per cent. of reactions, and I have tested animals worth hundreds of pounds, and they have re-acted, and in a few years they have been healthy and refused to re-act. Do you mean to slaughter them out, or what do you mean to do?

Mr. HUNTING: I think it is necessary to go a little further than merely asking for the scheduling of this disease. What I would suggest is that we ask them to schedule tuberculosis as a disease under the Act for certain purposes. First, for notification by the owner. There is nothing objectionable in asking a man to notify the existence of a contagious disease, especially when it is dangerous to the human subject. I cannot therefore see what objection there can be to asking that tuberculosis should be notified by the owner. Then a question would arise at once as to what is or is not tuberculous. Until the Government which has to run the Act approves of mallein for glanders, and tuberculin for tuberculosis, and positively accepts the reaction as an indication of disease it is not for us to pick out animals—to get 90 per cent. that react and say they are diseased. It is evidence towards the fact but not of the fact. What we want is that a man when he has a clear case of disease which his veterinary surgeon tells him is unmistakably dangerous to the rest of the stock and to the human subject as well, should be compelled to notify to the authorities. Doubtful cases can be provided for, as in glanders, by calling them suspected and requiring the isolation of suspected animals. Again we may safely say that animals described as "wasters" which are clearly clinically diseased, have no right to live, and if we provide compensation even to the extent of something less than the whole flesh value of the animal, we are providing quite sufficient compensation for it. I should therefore say that the slaughter of all clinically diseased animals might be properly asked for. To summarise my proposition I will move as an addition to adopting the report that "in the opinion of this College tuberculosis should be scheduled in the Animals' Diseases Acts for the purposes of notification, isolation of suspected animals, and slaughter of all clinically diseased."

Mr. FRASER: I will second that. I would suggest, on Mr. Hunting's principle that half a loaf is better than no bread, that we recommend that all dairies from which milk is supplied for public consumption should be certified by a member of the veterinary profession as being free from tuberculosis. That would not involve great expenditure; it would be a practical thing which could be secured, and so far as we do understand the disease the danger to the human subject is more likely to arise through the consumption of the milk than the consumption of the flesh. We should urge that the public milk supply should be from dairy cows that are certified to be free from this disease, if, indeed, we can rely upon the tuberculin test, of which I am not so sure as my friend Professor Edgar. I would suggest that the recommendation be confined to the existence of tuberculosis in dairy cattle.

Mr. HUNTING: That is a distinct amendment to my proposition, and I shall not accept it.

Prof. EDGAR withdrew his proposition in favour of Mr. Hunting's.

It was then agreed to take the resolutions separately.

Mr. MASON seconded Mr. Hunting's resolution, which was then put from the chair as follows:—"That the report of the sub-committee appointed to investigate the matter be adopted, and that we further recommend that the disease be scheduled for the purpose of notification, the isolation of the suspected, and the slaughter of all clinically diseased animals." This was carried with one dissentient.

Mr. FRASER'S proposition:—"That measures be taken for the veterinary inspection of dairy cows with a view to guard against the transmission of tuberculosis to man," having been seconded by Mr. Hartley, was also agreed to.

*Report of Jubilee Memorial Committee.*

The SECRETARY read the report of the Jubilee Memorial Committee, which recommended that the Jubilee Memorial Fund should be closed on the 15th January, 1896, and also that when the fund was closed it should be handed over to the Council with a suggestion that the bursary fund should be added to it. The report stated that the President, Mr. Simpson, had privately offered, if the Council would accept it, to give £25 for a tablet, and the committee recommended that a sub-committee should be appointed to arrange for the preparation of the tablet, the committee to consist of Messrs. Simpson, Trigger, Wragg, Hunting, and Macqueen.

Mr. TRIGGER, in moving the adoption of the report, said: I hope that it will go forth to the profession that the fund is closing in January, and that the handsome impulse which has been given to it to-day by the President may be a stimulus to the profession, and that we may raise a sufficient sum to ensure a scholarship, and hand it over to the Council. At the same time I beg to give notice that at the next meeting of the Council in January I shall move, "That the Bursary Fund now set aside to establish a scholarship, and now lying idle, shall be added to the Jubilee Memorial Fund, or the Jubilee Memorial Fund be added to the Bursary Fund, and the whole be used for the purpose of founding a scholarship."

Professor PENBERTHY seconded the proposition for the adoption of the report, which was agreed to.

Mr. TRIGGER: I also beg to give notice that at the next meeting I shall move, "That the Council be called upon to decide where the tablet is to be placed in the College."

Mr. DOLLAR: I should like to propose "That a hearty vote of thanks be passed to the President for the handsome gift towards the erection of this tablet"—which will, I have no doubt, form an ornament to our Council Chamber—"that the matter be published in all the journals, and that the editors of journals be asked to pay special attention to it."

The proposition was seconded by Professor McCall, and carried with acclamation.

*Notice of Motion by Mr. Mulvey.*

Mr. MULVEY gave notice that he would move at the next meeting "That any students passing with honours in one or more subjects of the examination in any class shall be exempt from re-examination in those subjects in which he has obtained honours."

*Motion by Professor Dewar.*

Professor DEWAR: We have appointed a Secretary for Scotland, and I wish to move that the following should be given as an instruction to the Secretary, "That he be instructed to collect the fees of the students at the respective colleges; that his attention be called to bye-law 82, and if it is found impossible to supply copies of the record sheet the same night that the examinations finish they shall be supplied at least within 24 hours thereafter, and that he be instructed to intimate the result of the practical examination and to give out the diplomas as soon as the examination is finished, and that if it be found impossible to give out the diplomas the same night they shall be given out on the following morning." I call the attention of the Council to this because it has not been done in the past.

Professor MCCALL: I think it is only right I should say that all that Professor Dewar has asked for has been freely supplied by Mr. Rutherford to the Glasgow Veterinary College. I will second Professor Dewar's motion.

Mr. FRASER: Shall we take the resolution in parts? The first part is one to which I am rather disposed to object. I do not see why an official should be asked to go to the schools to collect the fees.

Mr. HUNTING suggested that the words "for the Christmas examination" should be added to the first part of the resolution.

The motion of Professor DEWAR, seconded by Professor MCCALL, "That the Secretary for Scotland be asked to collect the fees of the students at the respective colleges," with the addition proposed by Mr. Hunting, "for the Christmas examination," was agreed to.

The PRESIDENT: The next is, "That the Secretary for Scotland's attention be called to bye-law 82, and if it is found impossible to supply copies of the record sheets the same night the examinations finish, that they be supplied within 24 hours thereafter."

Mr. MULVEY: I should like to hear what the bye-law refers to.

The PRESIDENT: The bye-law says that "copies of the record sheets are to be supplied to the principals of each school." Do you suggest, Professor Dewar, that bye-law 82 is not carried out?

Professor DEWAR: Certainly, I not only suggest it, I assert it as a fact.

The PRESIDENT: Would it not be sufficient that you simply get the Council to pass this resolution, "That the Secretary's attention be called to bye-law 82."

Professor DEWAR: That will do.

The PRESIDENT seconded the motion, which was agreed to.

The PRESIDENT: The next resolution is, "That the Secretary be instructed to intimate the result of the practical examination and to give out the diplomas as soon as the examination is finished, and if it be impossible to give out the diplomas on the same night, to give them out the next morning."

Mr. MULVEY: There is a distinct bye-law which states that the awards shall not be made known until 24 hours after the examinations have concluded.

Professor PENBERTHY: There was.

Mr. MULVEY: Then the bye-law has been deleted by mistake.

Professor MCCALL: I can assure you that in Glasgow diplomas are given to the students the very night they have passed.

Mr. MULVEY: It has been done contrary to the bye-law.

The PRESIDENT: If this is carried, each student may claim to have his diploma given to him the moment he has passed his examination. It does not mean after the whole of the examinations are over.

Professor MCCALL: I beg to second the proposition.

Professor EDGAR: I propose that the procedure of past years be adhered to.

Professor PENBERTHY: There is a bye-law of the College which says that after the examination is over the result should be immediately made known. There would be a difficulty about the diplomas. If in Scotland fifty men were going to have diplomas they could not be ready the same night or even the next day. As to the result being made known, I do not think anybody wishes to object to that.

Mr. DOLLAR: If Professor Dewar would so far meet the exigencies of the case as to consent to insert "twenty-four hours late" in his motion, I think that no great harm would arise, and the effect he desires would be produced without injustice to anyone.

Professor DEWAR: My proposal is simply that if the Secretary found it impossible or impracticable to give out the diplomas the same night he should give them out next morning.

Mr. HARTLEY: I think that if your original proposition became law the student, if he were a cute man of business, might demand his diploma instantly. That would be the spirit of the thing.

Mr. HUNTING: I suggest for Professor Dewar's acceptance, or as an amendment "That the Secretary be desired to present the diplomas to

successful candidates with as little delay as possible after the termination of the examinations."

The PRESIDENT: I was going to suggest this for your consideration—"That the Secretary be instructed to intimate the results of the practical examination to the principals of the schools within twenty-four hours after the examiners have handed in their report."

Mr. HUNTING: I do not like any fixed definite time—there might be circumstances that would prevent it.

Mr. MASON: There is no doubt that the names of the gentlemen who pass are given out at once, as far as practicable, but to hand over the diplomas to them and get the signatures of members is a different thing.

The PRESIDENT: My proposition should read, "That the Secretary be instructed to intimate the results of the practical examination to the principals of schools within twenty-four hours after the examiners have handed in their report."

Mr. MULVEY: I will support that.

Mr. HARTLEY: May I ask what is the practice in the medical profession?

The PRESIDENT: They have to wait weeks and months.

Professor DEWAR: I will accept the President's suggestion.

Mr. HUNTING's proposition, "That the Secretary be desired to present diplomas to the successful candidates with as little delay as possible after the termination of the examination," which was seconded by Mr. Bower, was put and agreed to, 8 votes for and 5 against.

The Council then adjourned.

*Special Meeting.*

At the conclusion of the foregoing meeting a special meeting of Council was held, Mr. Jas. F. Simpson, President, in the chair. Present: Professors Dewar, Edgar, McCall, Penberthy, Shave, Messrs. Bower, Dollar, Hartley, Mason, Mulvey, Trigger, Wragg, and A. W. Hill (Secretary).

The PRESIDENT: Our first business is to confirm the minutes of a special meeting held on May 10th. For some reason or other, although a meeting was held for the confirmation of a resolution which was passed at a previous Council meeting on May 10th, according to the Charter, the minutes were never confirmed.

Professor PENBERTHY: What was the resolution?

The PRESIDENT: The resolution was, "That advertising by veterinary surgeons in the public press, or distributing circulars, books, or cards relating to their professional attainments or abilities, or charges, or in respect to medicines or appliances prepared or sold by them, amounts to conduct disgraceful in a professional respect within the meaning of Section 6, Veterinary Surgeon's Act, 1881." This was an alteration of a bye-law, and it was sealed and signed by their President, but the minutes were not confirmed in the minute book.

Mr. FRASER: I move that they be now confirmed.

Mr. MASON seconded the motion, which was agreed to.

*Motion by Mr. T. D. Lambert.*

Mr. MULVEY: In the absence of Mr. Lambert, and on his behalf I beg to move "That the words 'four guineas' be substituted for 'five guineas,' and that the paragraph shall read as follows: "2. An examination fee of four guineas shall be paid for each examination."

Mr. HARTLEY seconded the motion, which was agreed to.

The PRESIDENT: I am afraid this will necessitate having a special meeting to confirm this. It must be within 14 days, and four clear days' notice must be given to every member of the Council.

On the motion of Professor PENBERTHY, seconded by Mr. WRAGG, a hearty vote of thanks was accorded to the President for his conduct in the chair.

## SCOTTISH METROPOLITAN VETERINARY MEDICAL SOCIETY.

A MEETING of the Scottish Metropolitan Veterinary Medical Society was held in the Clarendon Hotel, 104, Princes Street, Edinburgh, on Wednesday afternoon, 27th November, the President (Mr. John Cameron, Berwick-on-Tweed) in the chair.

### *The President's Hospitality.*

Arising from business mentioned in the minutes,

Principal WILLIAMS, on behalf of the Society, returned thanks to the President for his magnificent hospitality on the occasion of the summer meeting at Berwick-on-Tweed. He was only sorry that so few members had been able to avail themselves of that hospitality.

### *Tuberculosis in Cattle.*

The HON. SECRETARY (Mr. Peter Moir) read a communication from the Royal College of Veterinary Surgeons, dated 25th November, stating that a letter had been sent to the Board of Agriculture recommending for the consideration of the President of the Board that bovine tuberculosis should be scheduled under the Diseases of Animals Act for the purposes of notification, isolation of suspected animals, and the slaughter of all clinically diseased animals; and that means be taken for the veterinary inspection of dairy cows, with a view to guard against the transmission of tuberculosis to man. The Secretary added that at the meeting of the Council of the College an attempt to burke the petition which the Society had sent up for transmission to the President of the Board of Agriculture had been made by a member of the Council who held an exalted position in the profession, and to whom this Society was not unknown. Fortunately, wiser councils had prevailed, and the action which had been taken would be satisfactory to the Society.

The PRESIDENT also referred with satisfaction to this matter, and said they felt deeply indebted to the Secretary for the able manner in which he had drawn up the petition.

### *British Institute of Preventive Medicine.*

The SECRETARY also read a letter from the Royal College of Veterinary Surgeons, referring to the subscriptions asked for the British Institute of Preventive Medicine. He was sorry that the state of their funds precluded them from giving subscriptions to this or any other object. Of course, it was left to members of the profession to subscribe on their own account.

Principal WILLIAMS said they did quite enough for preventive medicine in this country without any fee or reward, and he entirely objected to any subscription of this kind, even supposing they had the money to afford it.

### *Lincolnshire Veterinary Medical Society.*

The SECRETARY next read a letter from the Lincolnshire Veterinary Society, stating that the representations of the Scottish Metropolitan Society on the subject of tuberculosis had been considered, and it was generally felt that in the unsatisfactory relations of the profession and the Board of Agriculture, it would be advisable to defer action in the matter until the claims of veterinary surgeons received better recognition.

The SECRETARY also read a letter from the same Society on the question of grunting in horses. The Society stated that they were of opinion that the sound known as grunting was a decided cause of unsoundness, and was a sufficient reason for the rejection of any animal so affected when submitted to veterinary examination. A concensus of opinion on the subject was much desired, as it would obviate the annoyance to practitioners resulting from the present state of affairs, and no less the loss of dignity

to the profession which was entailed by the opposite opinions of its members.

It was agreed to defer consideration of this subject till another meeting.

*Election of Office Bearers.*

The President and Secretary were unanimously re-elected to their offices Mr. Rutherford remarking that they would be making a grevious mistake if they made any mistake in the Secretaryship.

The Vice-Presidents were also re-elected.

On the motion of the Secretary, Mr. Robert Milne, Ladykirk, was admitted a member of the Society.

*Dishorning of Cattle.*

The PRESIDENT read a paper on "The Dishorning of Cattle." This was a subject, he said, which, on account of the recent Dundee dishorning case, affected the whole profession in various important aspects; such as their professional character, humane reputation, and their pecuniary interests. That doctors differed all were agreed. and they could reasonably claim the same privilege, especially in certain cases. But there were other occasions when differences were a dishonour not only to the individual concerned, but through them the whole profession suffered in public estimation. There were some differences of opinion which might be sharp and vibrate a good deal in the profession, especially locally, but the Dundee dishorning case brought their profession into even greater prominence than the Haddington case. He had read the case in detail in some of the public papers. Farmers had spoken to him about it, and he found they were unanimous in their opinions. They felt that justice had miscarried, and that humane feelings and actions had not been supported as they ought to have been. He was of opinion that the decision in this case was not representative of the profession in various aspects; including what was equivalent to a public declaration that any person was capable of and should be allowed to perform this operation. When the whole of the performance was properly conducted, it was short, if sharp, and was productive of beneficial results, and, therefore, was quite proper. But he held that it should be directed and performed by a veterinary surgeon, and that every effort should be made to cause the animal as little pain or mental annoyance as possible. How much rough usage cattle received when being caught, compared with what might be the case if good methods and skill were used. The proper securing of the animal was very important in enabling the operator to perform correctly and quickly. Practice made perfection, and he thought a good veterinary surgeon would be likely to accomplish the accessory and actual performance of the operation in the most expeditious, scientific, and humane manner. He would also be particular in regard to the most approved method, the best kind of instruments, and would keep the same in a clean, antiseptic condition. Supposing, for argument's sake, that the remarks of the Judge in the Dundee case, were sound sense and reasoning, was it not a logical sequence that there ought to be veterinary knowledge before, in order to determine those able or unable to stand the operation, and also to supervise their after-treatment. For these reasons and in conformity with the laws of surgery and dentistry, he thought the operation should be confided to the veterinary profession alone. When the horns were removed the animal was not only powerless to inflict dangerous injuries to its fellows, but the desire to romp and fight was absent. It now took life easy, which naturally favoured feeding. A greater number could be accommodated in the same spaces. He maintained that nature always compensated for any defect, and did so in this case by increased development of the muscles of the head and neck, especially if the operation was performed when the animal was young. This increased the amount of flesh on the animal, and meant increased value to the owner.

He remembered a case some years ago where a cow was so gored by another that she had to be killed, as she was nearly dead. A few days ago he was called to a case where a nice young foal had been very severely gored by a cow two or three days previously. She died next morning. A few years ago he castrated two nice year-old colts. On recovery they were turned into a field where there were some half-bred Highland steers. In a few days one of them was found severely gored in the near breast and terribly swollen; it had been about two days before then (June 13th). The swelling was decidedly erysipelatous, and the constitutional symptoms were also severe. The swelling was overcome, and the wound was all but healed up. It fed and moved better, but the pulse, &c., did not improve with the outward appearances, and on the 28th severe trembling, &c., took place, and he died on the 29th. He had expected that the horn was stopped by the sternum, but *post-mortem* examination revealed the fact that it struck the sternum at the junction of the 4th rib, passing through between the 3rd and 4th ribs, across the floor of the chest, ending with a deep indentation between the corresponding ribs on the off side. The floor of the chest contained a quantity of bloody *débris*. A few weeks ago he attended a cow very seriously gored in the udder; she lost a good deal of blood, and it spoiled one quarter of her udder. These were some of the more important cases he remembered. Many more might be cited by everyone in justification of the operation.

The SECRETARY read a letter from Mr. Andrew Hutcheson, Beechwood, Perth, stating that dishorning was absolutely necessary in the case of cattle fed in open courts, but that a veterinary surgeon should always be present when the operation was performed.

Principal WILLIAMS, as one of the witnesses cited but not examined in the Dundee case, said that from the reports in the newspapers, it appeared that the operation had been barbarously performed, but such was not the case. He had examined the horns, and was of opinion that with one exception the operation had been skilfully and neatly performed, but about a quarter of an inch of the first projection of the frontal bone had been removed along with one of the horns. He had been cited to give evidence for the prosecution, but after hearing the witnesses say that a great proportion of the frontal bone was removed by the operator, it was his opinion that they could not be supported by facts, because, with the exception of this single horn, there was nothing wrong in the operation. He did say, however, and was of the same opinion still, that the after treatment was negligent in the extreme. They were allowed to be fly-blown, and the maggots forming in the open wounds gave rise to extreme irritation and fever, and finally the death of the animal. It was a remarkable thing that injury to the horns gave rise in cattle to very peculiar symptoms. He had seen injuries to the horns give rise to every appearance of heart disease, such as great palpitation of the heart, great nervousness of the animal, loss of appetite, and so on. The pain was excessive, and he had no doubt this was due to the maggots wriggling about. In the Dundee case there was neglect, but there was no other cruelty. The judge said that neglect was not cruelty, and they were not there to dispute his law. He thought the operation should be left in the hands of a skilful man. He had seen it performed, but he had never performed it himself. He trusted he would never be in a position where it would be requisite for him to do so. Still, it was a necessity, and was allowed by the law of Scotland.

Mr. CLARKE, Coupar Angus, stated that he had been a witness both in the Haddington and Dundee dishorning cases. The whole evidence was as to the after treatment of the animals. In the Haddington case he went to North Berwick and found that the operator had done a thing which, in his opinion,

was quite unwarrantable and unnecessary, and which had been done, too, as the operator thought, with the most humane intention. The operator had got a knife and made an incision round the horn which he (Mr. Clarke) considered a most cruel thing, although the operator thought it would be less painful. He was also asked by the defence to go and examine the Dundee animals. He went and made a careful examination, and came to the conclusion that the animals had been successfully operated on with one exception, where the dishorning was slightly deeper than the others. He wished to point out, however, that he considered it an impossible feat in surgery to take any more than the horn from the root. The fact of the matter was that with the saw they could not cut the horn any deeper than the root, which he considered to be the proper place to dishorn the animals. He spoke without any egotism when he said that he had probably more experience of dishorning than any other man in Scotland. He had dishorned with his own hand 25,000 cattle, and he could therefore speak with some degree of authority on the subject. He had come to the conclusion that the best and only plan of dishorning cattle was to do so at the root of the horn, where Mr. Wilson, in the Haddington case and in the Dundee case, had done it. Dishorning should be in the hands of qualified veterinary surgeons, and a great deal depended upon the time of the year. He held that there should be a close time for dishorning, from the first or second week of May till the middle of October, and anyone should be punished who did it at any other time of the year. In Mr. Swan's case the weather took a very unfavourable turn. It was excessively hot during the day, and at night it was almost arctic. The formation of the maggots during the day, and the extreme cold at night, were the means of killing the animals. The practice of dishorning was looked upon by city men as being cruel, but he looked at it from a humane point of view, and he could give scores of cases where legs had been broken and animals had been killed by goring each other. He thought the Society for the Prevention of Cruelty to Animals should rather apprehend those who did not dishorn their cattle. It was very cruel to put a lot of horned cattle together, particularly heifers. Mr. Hutchinson had told him just the other day that he was under the necessity of sending for his veterinary surgeon in order to open abscesses caused by animals goring one another. With regard to the question of bleeding, he said he never tried to stop bleeding, as he thought this was totally unnecessary. The more healthy an animal was, and the freer the blood flowed about, the quicker it would recover. In dishorning cattle no treatment was absolutely necessary. He had dishorned cattle for twenty-five years, and, with one or two exceptions, he had never required to treat them at all. In dishorning, they ought to saw as close to the head as they could, even though they run the risk of taking a bit of the frontal bone. It was the worst possible plan to leave two or three inches, for common sense showed that it was only a receptacle for the holding and retention of pus which would burrow down into the frontal bone, and give very bad results.

Replying to a question by the Secretary, Mr. CLARKE said that in his 25 years experience, he had had only two cases which terminated fatally. In both cases the animals escaped out of an open court, and were exposed during the night to extreme frost, just as had happened in the Dundee case. Replying to the President, Mr. Clarke said he had only dishorned with the shears about fifty cases. He held it was absolute cruelty to dishorn close to the head with shears, because they could not do it without crushing the bone.

The subject then dropped.

*Notification of Diseases.*

Mr. RUTHERFORD, Edinburgh, introduced the subject of the compulsory

notification of contagious diseases to the Government. The profession had, by a majority, decided in favour of compulsory notification, but it was very questionable if that was the view of the whole profession. He was opposed to it because of the shabby fashion in which the Board of Agriculture proposed to treat the veterinary profession by remunerating them with half-a-crown for each notification. It would be time enough for them to agree to notify disease when the Government gave their profession satisfactory treatment and a free hand in dealing with disease. It was questionable whether the voice of the whole profession had been heard on the subject; certainly not those who had given the matter very careful consideration. It was not the voice of the profession, outside the favoured few, who derived at present large emoluments from the Board of Agriculture. He had returned "No" as his answer, and his reasons were not personal at all. He objected to become a policeman for half-a-crown a time, and he had no guarantee that if he informed the authorities that he had a case of contagious disease, that case would be left in his own management, and that his claim on his client's custom would not be "jumped to somebody else," to use a Colonial expression. It would be time enough for them to agree to notify disease when they were satisfied with the treatment of their profession by the Government. He would decidedly oppose any notification of disease unless they had in black and white, in the strongest possible terms, a most liberal interpretation of the Act, as to how veterinary surgeons would be left to deal with disease. He did not for a moment think it was the wish of the stock-owners of this country to hide disease from the Government; in fact they would be standing in their own light if they did so. Most of his clients would be anxious to notify that they had disease, if they were satisfied that they would be honestly dealt with by the Government. They wanted first of all to have the programme and promises of the Government in the event of contagious diseases being scheduled, and to know what were their intentions to the stock-owners and the veterinary surgeons. For his part he decidedly objected to destroy the confidence that existed between himself and his clients for the paltry purpose of serving the Government for half-a-crown a time or for any other sum.

Professor W. O. WILLIAMS said the Council of the Royal College had considered the matter, and had decided that they would not allow the Government to enforce compulsory notification until certain regulations had been made, one of which was that they should notify to a qualified veterinary surgeon not in practice in their own districts, so that the Government would require to have qualified district veterinary medical officers of health. These district veterinary medical officers of health would receive a notification that there was an outbreak of disease, and they would act upon it, but they would not have the power to interfere with the practice of the veterinary surgeon in whose practice the case happened.

The SECRETARY thought that notification would be a powerful factor towards suppressing infectious diseases, but the whole scheme to his mind bristled with difficulties. In discussing this subject they had the advantage of knowing what transpired in the previous week in the Council of the Royal College. There the President announced that the Secretary had sent out 2 758 circulars to the members of the profession, asking their opinion as to notification—whether they approved of it or not. To this circular only some 700 responded, so that about 2,000 took no notice of it whatever. They were bound to believe that a very large proportion of these 2,000 by acting in this way gave a silent demonstration of their disgust and disapproval not of the scheme, but of the source from which it emanated. Of the 700 who replied, about 500 said they were in favour, and about 200 said they were against it. Of the 500 who approved, a large proportion did so with certain stipulations.

In addition to this, they learned that a committee of the Council had resolved to petition the Board of Agriculture that the veterinary department should be strengthened. What had this animal department of the Board of Agriculture been doing of late? They had been strengthening the lay element, by appointing additional travelling inspectors who were not veterinary surgeons. He noticed in the *Veterinary Record* that some fifty lay veterinary inspectors had been lately gazetted. He had seen some of the names of these gentlemen, and he must say that many of them were very high-sounding names. His impression was that Major Tennant of the Animal Department of the Board of Agriculture ruled the roast, and that the savoury drippings of this roast were bestowed in the shape of good appointments to the impecunious friends of a circle of society higher than their own. What examination had those gentlemen passed? What were their qualifications? The veterinary profession was overcrowded, which was the result, to a great extent, of the good work they had done in suppressing disease. They had reduced the amount of disease, but at the same time they had reduced the amount of their practice and their pecuniary returns generally. There were many men in the profession who would subject themselves to any examination, if they were asked, in order to denote their fitness to inspect at the seats of outbreaks of infectious diseases, and to advise preventive measures. Many men in the profession would be glad of these appointments. He thought it was a gross abuse of power that the veterinary profession should be treated in this way, after the good it had done for the country. It was for the Royal College and the profession at large to make the best terms they could with the Board of Agriculture. He had returned his circular with the answer "Yes." He was in favour of notification, but he only wished it to be put in practice when the Animals' Department of the Board of Agriculture ceased to insult and injure the profession.

The PRESIDENT read the answer which he had sent to the circular of the Royal College. He was in favour of compulsory notification as suggested by the Board of Agriculture, provided that it was accompanied by the other concomitant methods of procedure which everywhere prevailed in connection with the medical profession. Otherwise he said "No." If the Board of Agriculture meant them to simply notify all such diseases, and have nothing else to say or do with it, as obtained in most countries at the present time—the Board of Agriculture's amateurs and the police having all other procedure in their hands—then most decidedly he said "No." Why should they be treated so badly and differently from the medical profession? Every parish, or two or three parishes combined, had its medical officer of health, with a chief one over the whole county. Such had also been the mode of veterinary management for years in Aberdeenshire. He asked them to compare the excellent results which were obtained there with those bad results in some North of England counties a few years ago. In some other counties the members of their profession had for years fully reported all cases, although they had been denied the district official position which they were entitled to, and had received neither thanks nor reward. Compel every local authority to divide their whole boundary into districts, and appoint the ablest M.R.C.V.S. as district inspector, with a consulting one for the whole county, each to receive some small remuneration. Having done so they could then proceed with compulsory notification, there being only a small unplaced minority who would be affected by it in counties. As for large towns and cities, he was sure many of the unplaced members would be very glad if they were compelled by law to report all such diseases. It would relieve them from the very unpleasant position in which they occasionally found themselves. He hoped the Council would speak out in favour of more just treatment to the profession without regard to fear or favour.

Mr. RUTHERFORD repeated that they would destroy all confidence between themselves and their clients if they were to act the part of policemen in this matter.

Principal WILLIAMS said notification was quite unnecessary, for, with the exception of swine fever, they had no disease at present in Scotland; and why should all that noise be made about notification now? Until tuberculosis was included in the Act they would have nothing to do, and he did not think any of them would make half-a-crown a year by notifying outbreaks of disease under the Act.

Professor W. O. WILLIAMS moved that they represent to the Royal College that they did not desire notification unless to qualified veterinary surgeons out of practice, who should be the inspectors.

The SECRETARY seconded the motion.

Mr. RUTHERFORD moved, as an amendment, that they do not approve of compulsory notification, and this was carried by a majority.

### *The Tuberculin Test.*

Mr. BOYD, Melrose, made the following short statement regarding the tuberculin test: The Government of this country is grudgingly slow to give a helping hand to the veterinary profession. Even when the profession brings before the country any scientific discovery, such as the tuberculin test, likely to be a universal benefit, the Government is slow to take it up. Considering the great prevalence of tuberculosis and the great certainty of the tuberculin test, I consider it the duty of every veterinary surgeon to bring forward statistics regarding the tuberculin test, and impress the Government with the necessity of taking it up. I wish to bring before the meeting what I have done in testing with tuberculin, and show how many cases of tuberculosis we find in one district. Altogether I have inoculated 76 different cattle, a good many of which I had reason for suspecting had tuberculosis. Out of the 76 inoculated, 30 failed to stand the test. Of the 30 that failed to stand the test, I made 20 *post-mortems*, and each *post-mortem* proved the tuberculin test to be correct. I determined to try tuberculin as a curative agent the first chance I got. I got the consent of a stock-owner to try an eight-months-old heifer. This heifer was in poor condition, much enlarged in the parotid glands, and made a loud noise in respiration. I have inoculated the heifer 6 times, and the following are the temperatures before and after each inoculation:—

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Temperature | before | first | inoculation | .. | .. | .. | .. | 102 |
| ,, | *after* | ,, | ,, | .. | .. | .. | .. | 106 |
| ,, | before | second | ,, | .. | .. | .. | .. | 101¼ |
| ,, | *after* | ,, | ,, | .. | .. | .. | .. | 106 |
| ,, | before | third | ,, | .. | .. | .. | .. | 101⅜ |
| ,, | *after* | ,, | ,, | .. | .. | .. | .. | 105⅞ |
| ,, | before | fourth | ,, | .. | .. | .. | .. | 101⅛ |
| ,, | *after* | ,, | ,, | .. | .. | .. | .. | 105 |
| ,, | before | fifth | ,, | .. | .. | .. | .. | 102 |
| ,, | *after* | ,, | ,, | .. | .. | .. | .. | 104 |
| ,, | before | sixth | ,, | .. | .. | .. | .. | 102 |
| ,, | *after* | ,, | ,, | .. | .. | .. | .. | 103½ |

This heifer is now much improved in condition, the enlargements in the

parotid region are much less, and the noise in respiration has greatly diminished. I am still continuing the inoculation to see what the result will be.

After some observations from Mr. McCONOCHIE, AYTON and Mr. AITKEN, Dalkeith,

Principal WILLIAMS said that, from his personal experience, and from his reading, he was prepared to say that if there was an elevation of temperature after the tuberculin inoculation, that showed tuberculosis somewhere. It might even be in the marrow of the bone. In trivial cases the tuberculin action was very pronounced, whereas in others, where the tuberculin was diffused, the elevation of temperature was very small in comparison.

Professor W. O. WILLIAMS instanced the case of a cow which, on being cut up by the butcher, who intended to send the marrow-bones to the clubs, was found to contain a cheesy material in the bones. These bones were sent to the College, and this matter was discovered to be typical tuberculosis in the bone, although the cow otherwise was perfectly healthy.

Professor W. O. WILLIAMS afterwards exhibited his tracheotome and a set of Huish's instruments in case. The President also exhibited a pole for holding cattle while being dishorned.

### *A Long-lived Horse with Calculus.*

Mr. RUTHERFORD brought under the notice of the meeting the case of a horse suffering from calculus, which had lived longest of any horse in his experience suffering from that disease. The time he lived while under treatment was exactly 31 days, and he fancied this was almost a record case. It was a horse about six or seven years old. He had been sold by a client of his, and was on trial. He was attacked with colic, and on the second day, as the horse was no better, his client desired him to go and see it, and if the horse was fit for removal, to remove him to his own premises for treatment. The other veterinary surgeon who was in consultation agreed with him that the horse was quite fit, and he was accordingly removed to his client's premises. When he first saw the horse there was nothing to distinguish him from an ordinary case of stoppage of the bowels, and the horse had received up to that time what he considered to be proper treatment. The only thing he recommended was hot blankets, and he was treated as suffering from colic. That day, he thought, he had two subcutaneous injections of morphia, and on the following day there was still fugitive colic. The day after he was obliged to leave for Birmingham, and being desirous to see passage of the bowels, he administered esserine sulph. The day passed, but this had no effect. There was no passage, and when he returned from Birmingham, three days afterwards, there was still no passage, but the horse was fairly comfortable. There was no swelling; colic was there occasionally, just a scrape or two. He had no appetite; he showed a tendency to stand backwards, and he had an abominable, foul, fœtid breath. The indications were that it was more likely a case of what one would call the suspension of the function of the bowels—a condition approaching almost to paralysis of the bowels than anything else. His diet was put in the form of oatmeal and linseed gruel. Everything was done with the view of restoring the functions of the bowels. He was exercised, and it was noticed that the exercise invariably produced an excess of abdominal pain. Finally, they had to abandon the exercise. The case went on like this till the 20th day. So far as external appearances was concerned, there seemed to be nothing the matter with the horse. About the 20th day he began to eat a little, and was fairly well. The pain was very seldom present. On the 20th day there was an excess of pain and change of the bowels. He began to fear the worst, and determined to rouse the bowels into some kind of action. An injection was administered, and

this produced a violent colic, and in a short time he had a passage from his bowels. The passage continued for six or seven days, and then the stoppage returned, and death took place eleven days after that. After he got passage the first time the attack came on, he was pretty confident that this was a case of calculus. He never could feel the calculus nor locate it at all. If ever there was a favourable case for operating upon this was one. He told his client, and as he was satisfied it was bound to die, he did not wish his animal to be butchered, and preferred it to die painlessly. It would have required an excision of 18 inches to get the calculus out, and he could not recommend an operation under these circumstances, especially as the animal was in an ordinary loose box, and there were no surgical appliances at hand. This animal never received anything in the way of purgatories, and it was to that he attributed the fact of its living so long.

Principal WILLIAMS said he had seen two or three cases where horses had lived 19 to 21 days, but never one that had lived for 31 days. He attributed it entirely to the absence of purgatories. When purgatories were administered the horse usually died three or four days afterwards. They should not perform an operation unless they were satisfied that the calculus was there.

Votes of thanks to the speakers and the Chairman brought the meeting to a close.

## ADDRESS TO THE STUDENTS OF THE GLASGOW VET. COLLEGE.

BY PROFESSOR MCKENDRICK.

(*Continued from page* 366.)

IN the second year you will also receive practical instruction in stable management, and the manipulation of domesticated animals, and the principles of shoeing. No doubt some of you will be already familiar to some extent with the management of animals. Nothing is more striking than the ease with which some men can control animals contrasted with the clumsy efforts of others. Probably much depends on the innate qualities of the man—kindliness, courage, firmness, promptitude—but these qualities can be developed and improved by practice, and you will have explained to you the general principles on which you must proceed. In this department of your work, and, indeed, throughout your lives, you will learn to treat animals with kindness and consideration. Nothing can be gained by brutality and coarseness, and the animal will respond, as a man does, to a union of gentleness with firmness.

Your third year introduces you to the phenomena of disease and to practical therapeutics. In the first place, you will study morbid anatomy, pathology, and bacteriology, not merely from books, but with the diseased specimens before you, and with the aid of the microscope, and the improved methods of observation now in vogue. It is much to the credit of veterinary medicine that she soon recognised the value of the study of bacteriology. The domestic animals, like ourselves, are preyed upon by organisms of a lowly nature, and yet potent in their effects. Bacteriology is the department that studies the life history of these organisms, their mode of multiplication, the conditions that favour their multiplication, the effects they produce in the living body, and the conditions in Nature that favour their destruction. A vast amount of information has been gathered in recent years as to the natural history of these organisms, and the last development in this chapter in science is the isolation and identification of the specific substances produced by these organisms (known as ptomaines)—substances which produce powerful effects on the living body. Bacteriology takes us nearer to the origin of many diseases. The older pathologists cultivated with great success a division of the subject known as pathological anatomy. They described and preserved the diseased specimen ; they were well acquainted with the naked eye appear-

ances after the disease had done its worst; but they made little progress in tracing the first steps of the disease. The study of micro-organisms as a cause of certain maladies has undoubtedly led us nearer to the earlier pathological conditions, and by this route we may hope to reach the genesis of cancer, of tubercle, and possibly also of many tumours and inflammatory conditions of certain organs. I do not by any means assert that the germ theory of disease is the last word in pathology, or that it is the key by which all pathological problems will be solved, but it has added enormously to our knowledge of the natural history of many diseases, and it has been a beacon light guiding the course of preventive medicine. For these reasons you should take every opportunity of acquiring a good practical knowledge of the subject.

Along with the study of pathology in your third year, you will have brought under your notice *materia medica*, or the natural history of the substances used as remedies: pharmacy, or the technical art by which these substances are converted into medicines; therapeutics, or that branch of medical science which teaches the general principles that guide us in the selection of drugs for special morbid states; and toxicology, or the natural history of poisons. Another course of great importance is that treating of veterinary hygiene and dietetics. Hygiene deals with all the questions of physical well-being, such as good water, pure air, and food sufficient in quantity and adapted in quality to the work the animal has to perform. It also treats of the proper housing of animals, the special treatment of the horse so as to secure the best physical development of the animal, the care of cows in the dairy during gestation, &c. You will observe that this is all in the direction of the prevention of disease, while it aims at the highest state of efficiency of the animal.

Finally, you come to the fourth year, when your attention will be wholly directed to the study of veterinary surgery and medicine. This is the time when you will bring to focus all the knowledge you have previously acquired, and you will be successful in this department, the main work of your lives, just in proportion to the thoroughness with which you have mastered the earlier studies. If you will allow me to quote my own experience, I would advise you to take every opportunity of acquiring clinical knowledge. Study thoroughly each case of disease brought before you, follow your teacher in the detection of each physical sign of the disease, make notes of all your cases, indexing and classifying these for future reference. Thus you will, day by day, find your experience accumulating, and when you step into actual practice you will have a store of available knowledge of greater value than you can ever acquire from books.

### *Examinations.*

I have now given a sketch of the curriculum through which you will pass, and you will admit that it is broad and comprehensive. If we were all in earnest about our work, and if we conscientiously took every opportunity of acquiring sound knowledge, attendance on such a course of instruction as I have delineated ought to qualify a man to practise. Unfortunately, however, we must take human nature as it is, and as many men are not inclined to work nor to take the advantages of education offered to them, the public must have some guarantee that men are fit to practice before they commit valuable animals to their charge. This guarantee is obtained by the examinations of the Royal College of Veterinary Surgeons. Examinations are by no means the only test of a man's fitness, but they are the best available test, and until we can devise a substitute the inevitable examinations must be faced. I fear that my views on examinations will not meet with general approval. At all events, I recognise the fact that they are not in harmony with the opinions of many of those who direct our affairs in these matters. Let me, in the first place, say,

however, that, so far as the examinations of the Royal College of Veterinary Surgeons are concerned, I believe they are reasonable and well arranged. The examination in each subject is both written and oral. Written examinations have only recently been introduced. The candidate is allowed two hours to write a paper on each subject, except veterinary medicine and veterinary surgery; for each paper on the latter three hours are allowed. My opinion is that the introduction of written papers has been of considerable advantage to the candidate, by giving him a certain measure of confidence before he appears for the oral examination. Apart also from their value as an immediate test, I think they serve a useful purpose in guiding the student during his curriculum. One should often practise the art of written composition. The exercise leads to precision of thought and to a clearer perception of things. Our modes of speech are often very inaccurate, and oral statements will seldom bear inspection when they are put on paper. I would therefore strongly advise frequent written exercises in all classes, were it for no other reason than that the practice cultivates style. The style of a written composition counts for much when one has to submit a paper to a body of educated men. Suppose, for example, that you are asked, as you probably will be, to give a report on a valuable animal, or on a question relating to the hygienic arrangements of a dairy farm, the mode of your report will show at once whether or not you are an educated man, and it will make an impression for or against you.

After the written paper you will have an oral examination, occupying from twenty minutes to an hour. This no doubt is the testing examination, and it should count for more than the written paper. As far as possible it should be of a practical character, and for this purpose I think the examination should be held in the place where the subject is taught. The examination in chemistry should be in the chemical laboratory, and the examination in anatomy in the dissecting room. We will by-and-by get rid of the antiquated plan of all the examiners sitting in one room. This is a convenient method for the examiners, but not for the candidate, who must be often disturbed by the sounds in his vicinity. After an ordeal of one or two "tables," a man is almost certain to be in a disturbed state when he appears at the second or third, and he may be stunned by a question on a fresh subject being hurled at him almost as soon as he has taken his seat. I have often noticed desperate efforts at self-control in these circumstances. All this might be avoided. The candidate should have every opportunity of showing what he knows, and he should never be handicapped by unfavourable conditions. In the quietness of a laboratory, or in a dissecting room, with all kinds of specimens lying about, the candidate and the examiners should have a peripatetic conversation, during which the former will have nothing to distract his attention from the subject in hand. I feel sure also that this plan would be much less fatiguing to the examiners.

The point on which I must give expression to views that will be deemed heterodox is with regard to teachers taking some part in the examinations. My training and position in a Scottish university no doubt leads me to favour the practice of teachers acting as co-examiners, but as I quite recognsie the difficulties in the way of the Royal College of Veterinary Surgeons following this course, this expression of my views may be regarded only in the light of a pious opinion. My fundamental principle is that teaching should always be something above and ahead of examining. The examiner should never control the teacher. The teacher should be the best man available for the post he fills, and he should teach his subject to a great extent irrespective of the claims of examiners. His teaching should be conjoined with class examinations forming part of the class work. The work done by a man in the class should form part of the test examination. If this were recognised

it would stimulate a student to diligence during the time he attended the class, and it would, to a large extent, do away with the customary cramming before an examination. The method of having the examinations entirely conducted by examiners who are not teachers, sets up a standard of knowledge to which the teachers must conform, and there is always a risk of examiners being appointed who are not conversant with the subject as viewed from the latest standpoint. The remedy I would suggest is for the Royal College of Veterinary Surgeons to declare that the fact of being a teacher in any of the veterinary schools of the country shall not disqualify a man from acting as an examiner in the subject in which he teaches. Further, that as there are two examiners in each subject, one of these should always be an expert chosen from the ranks of the veterinary profession, or from the medical profession, while the other should be, for a term say of three years, one of the teachers of the subject in one of the veterinary schools. It would not be difficult to arrange that the professoral examinerships should go to the four veterinary schools in rotation. Such an arrangement would have an important effect on the status of the teacher, and I feel sure it would help to keep up that intimate connection between the subject as taught and the subject as examined upon that ought to exist. There should not be two, but only one standard of excellence. If, along with this, some scheme could be devised by which class work could be taken into account, the evils of the examination system, which almost everyone recognises, would be to some extent overcome, and the test applied to candidates would be more trustworthy than it can be under the present system.

*The Veterinary Profession and Preventive Medicine.*

It is one of the characteristic features of the veterinary profession that it has done so much in the way of preventive medicine. This, no doubt, arises largely from the nature of the case. Measures can be adopted to prevent or suppress diseases that cannot be applied to human beings. Anyone studying this aspect of the subject is struck in the first place with the enormous numbers of the animals usually classed as domestic, and which form no inconsiderable part of our national wealth. Thus the preliminary statement compiled from the Agricultural Returns of Great Britain (not including Ireland), collected on the 4th of June, 1895, show the following figures:—

| | |
|---|---|
| Cows and heifers in milk or in calf | 2,485,820 |
| Other cattle, 2 years and above | 1,431,525 |
| „ 1 year and under 2 | 1,190,368 |
| „ under 1 year | 1,246,623 |
| Total of cattle | 6,354,336 |
| Ewes kept for breeding | 9,663,129 |
| Other sheep, 1 year and above | 6,334,386 |
| „ under 1 year | 9,794,680 |
| Total of sheep | 25,792,195 |
| Sows kept for breeding | 415,210 |
| Other pigs | 2,469,221 |
| Total of pigs | 2,884,431 |

The number of horses in 1894 is given at 1,529,641* in Great Britain, and

* The Statesman's Year-Book, 1895, p. 67.

468,089 in Ireland. In 1894, in Ireland we find of cattle 4,392,194, of sheep 4,105,250, and of pigs 1,389,310. These figures must be added to the figures of the table given above to show approximately the number of live stock in the British Isles.

The Agricultural Returns for the Board of Agriculture for 1894 give the following very interesting statistics for 1893 as to the live stock of certain of the chief countries of the world :—

| | Horses. | Cattle. | Sheep. | Pigs. |
|---|---|---|---|---|
| United Kingdom .. | 2,079,587 .. | 11,207,554 .. | 31,774,824 .. | 3,278,030 |
| Australia.. .. | 1,870,058 .. | 12,637,252 .. | 116,159,732 .. | 1,027,714 |
| Austria-Hungary .. | †1,548,197 .. | †8,643,936 .. | †3,186,787 .. | †3,549,700 |
| Canada .. .. | 685,187 .. | 2,057,882 .. | 1,935,938 .. | 1,012,022 |
| Cape of Good Hope | 340,323 .. | 1,929,800 .. | 15,124,753 .. | 228,764 |
| France .. .. | 2,767,648 .. | 12,154,641 .. | 20,275,716 .. | 5,860,592 |
| Germany .. .. | ‡3,836,256 .. | ‡17,555,694 .. | ‡13,589,612 .. | ‡12,174,288 |
| Russia in Europe | *19,663,336 .. | *24,609,264 .. | *44,465,454 .. | *9,242,997 |
| United States .. | 16,081,139 .. | 53,095,586 .. | 45,048,017 .. | 45,206,498 |

In his report to the President of the Board of Agriculture, Major Craigie makes the following interesting comments (Agricultural Returns for 1894, p. 45) :—

"The stock of cattle in the United States, nevertheless, far exceeds the record of other countries, being more than twice as great as the numbers last shown for Russia in 1888, more than three times greater than the total returned for the German Empire in 1892, and from four to five times greater than either the Australasian, French, or British herds. In sheep the same predominance is not apparent, as the United States, with their population of 66,800,000, do not return more than 45,000,000 sheep, compared with 116,000,000 in our Australasian colonies, with their 4,000,000 inhabitants. There were nearly 32,000,000 sheep to 38,000,000 persons in the United Kingdom in the year in question. In numbers of swine, no other country approaches the United States, there being, even after a reduction of 7,000,000 head compared with 1891, 45,200,000 enumerated against 5,860,000 in France, and 3,278,000 in the United Kingdom in 1893. Germany, with 12,174,000 pigs in 1892, come nearest to the American total. Even this number, however, only represents a little more than 24 pigs to each 100 persons, while the American population, even as now reduced, stands at 67 to each 100. The proportion of pig stock to population, which the agriculturists of the United Kingdom apparently believe it profitable to maintain, does not much exceed one-eighth of this ratio."

These figures will help you to realise the enormous interests committed to the charge of the veterinary profession. It is well known that plagues (most of them of foreign origin) have raged among our flocks and herds from the earliest times. A most interesting history of those epidemics for the period from B.C. 1490 to A.D. 1800, is given by my friend, Dr. George Fleming, in his work on animal plagues, a book I would strongly recommend you to read.§ It is only, however, in comparatively recent years that efforts have been made on a great scale, and by public authorities, to arrest the progress of these plagues. From 1865, when a Royal Commission was appointed to investigate the origin and nature of cattle plague, down to 1892, when an Act (55 and 56 Vict., c. 47, passed 27th June, 1892), was passed to enable the Board of Agriculture to apply the monies provided by Parliament for stamping out pleuro-pneumonia for the purpose of dealing

* 1888. † 1890. ‡ 1892.

§ Animal Plagues: Their History, Nature, and Prevention. By George Fleming, LL.D., &c. London: Chapman and Hall, 1871.

with foot-and-mouth disease, a great deal has been accomplished. An excellent summary of these measures, and of their beneficent results, is given by Professor G. T. Brown in his report (dated March, 1894) to the President of the Board of Agriculture for 1893. Previous to 1865 the Acts in operation relating to diseases of animals were limited in their operation and were comparatively unimportant. The virulence of the cattle plague led to an order of Privy Council directing dairymen and owners of stock to give notice of any outbreak of cattle plague to the Clerk of Council. Mr. Brown states that, "Instead of obeying this order, owners of stock deemed it more to their interest to conceal the disease and send their cattle to the market as quickly as possible, with the natural consequence of the rapid extension of disease from the Islington market." This led to the appointment of inspectors, to the passing of several Acts of Parliament (29 Vict., c. 2; 29 Vict., c. 15; 29 and 30 Vict., c. 110; 30 and 31 Vict., c. 125), and also to the important step of instituting the Veterinary Department. By 1867 cattle plague had been almost stamped out by the application of the system of slaughter, a system, however, that met with strong opposition from many quarters.

Other diseases were common in this country amongst animals. According to Professor Brown, foot-and-mouth disease has existed since 1839, pleuro-pneumonia since 1840; anthrax, sheep scab, swine fever, and rabies from an unknown period. About the time of the cattle plague pleuro-pneumonia was prevalent, and its contagious nature was scarcely recognised. By an Act passed in 1869 (32 and 33 Vict., c. 70), which repealed all previous Acts relating to Animals, extensive powers were given to the Privy Council to deal with the suppression of cattle plague, pleuro-pneumonia, foot-and-mouth disease, sheep pox, sheep scab, and glanders. This Act controlled and regulated the conditions of foreign importation to an extent before unknown; and the Privy Council, guided by the officers of the Veterinary Department, issued numerous orders, and gradually worked out an efficient system which, while it may have caused local inconvenience and affected private interests, has had most beneficent results. Thus, as regards pleuro-pneumonia, and especially since the passing of the pleuro-pneumonia Act (53 and 54 Vict., c. 14, 1st September, 1890) in 1890, year by year the number of outbreaks has diminished. In 1890 the total outbreaks were 193, while they were reduced to nine in 1893. Mr. Brown (Professor Brown's report *op. cit.* p. 11 and p. 12) remarks:—

"It is not possible to assert that pleuro-pneumonia has been entirely extinguished. Even in a small island like Great Britain it is not very difficult for those who desire it to keep the disease concealed, by sending cattle to be slaughtered immediately on any sign of illness appearing, and disposing of the rest of the stock at the most convenient markets. It may, therefore, be expected that outbreaks of disease may be discovered from time to time, but there need be no apprehension of any extensive spreading of the affection with the present machinery for the purpose of detecting and arresting it. . . . At the end of the year 1893 the sanitary condition of the stock of the country, at least in regard to those diseases which come under the provisions of the Contagious Diseases (Animals) Acts, was satisfactory. To summarise the work of the past twenty-eight years, it may be stated that three incursions of cattle plague, and four outbreaks of sheep pox had been effectually suppressed. Pleuro-pneumonia had been so far stamped out as to be looked upon as a thing of the past, and foot-and-mouth had apparently ceased to exist. In fact, swine fever is the only disease remaining, the stamping out of which can be considered a matter of urgency."

The diseases of anthrax and rabies, especially the former, are still too common, but the prospects of their final extinction are hopeful. In 1893 1,300 animals were attacked with anthrax in Great Britain, "almost double

the number of any previous year since statistics has been obtained." When we consider that the blood of an anthrax animal is highly virulent, even to human beings, causing in the latter malignant carbuncle and the peculiar malady known as "wool-sorters' disease," it is no wonder that considerable alarm has been created. The battle, which will no doubt end in the extinction of this malady, was really won when it was found to be due to a small rod-like organism, *bacillus anthrasis.* The life history of this organism is now well known, and, from the practical point of view, two important observations have been made:—(1) That the blood is highly virulent; and (2) that the organism soon dies, probably from deficiency of oxygen, during putrefactive changes. Means are now taken, after the slaughter of the infected animals, to destroy the blood and the carcase, and to thoroughly disinfect everything with which blood may have come into contact.

The splendid results I have briefly laid before you redound to the credit of the veterinary profession. They are quite in keeping with the results of the sanitary efforts of the other branch of the profession dealing with many zymotic diseases. Both unite in teaching us two lessons. The first is that if we would conquer a disease we must study its natural history. Here knowledge guides to efficient action. When we know the cause and the conditions favouring the efficient action of the cause of any disease, then we can deal with it, if not in the way of cure, at all events of prevention. The second lesson is that, in dealing with any prevalent disease, the interests of individuals must always give way to those of the community. Any action involving destruction of property will always meet with opposition from those who own the property, even though they may admit that the proposed action is in the interest of the public. It follows that it is only just to remove this opposition by distributing the loss over the members of the general community. If the stock of a farmer has to be sacrificed in the general interest, it is only reasonable that he should be helped out of local rates, or in any just way our fiscal authorities may determine, to bear the financial loss. It is, however, another matter when we consider the case of men whose interest it is to favour the importation of foreign cattle, and who are always ready to find fault with the stringent regulations of the veterinary department. Here self-interest must not be allowed to interfere with the rights of the owners of our own flocks and herds, who dread the introduction of disease from abroad. No doubt, much wisdom is necessary in dealing with these matters. On the one hand, the dock regulations must be such as thoroughly to prevent the introduction of disease from without, but they must not be such as will afford more than legitimate protection to the owners of our home flocks or herds, nor must they interfere with the food supplies of the masses of the people. As pointed out by the Marquis of Londonderry at the Sedgefield Show in August last (*Live Stock Journal*, 30th August, 1895, p. 241), there is a decrease in the importation of live stock, upon which this country so largely depends, of no fewer than 866,413 beasts during the last seven months. How far this diminution may be due to the effect of stringent regulations, or how far it may be due to some relation between the number of live animals and the food stuffs of the country, it is not in my power to say, but the reduction in the numbers calls for remark.

I shall say little about the large amount of tubercular disease that is said to exist among cattle, and which appears, according to the best authorities, to be communicable to man. Tubercular disease, in all its forms, is undoubtedly excited by the micro-organism known as the tubercle bacillus. A recognition of this fact throws a new light upon the prevalence of tubercular disease in this country. If the organism can be introduced into the body of the human being by the eating of imperfectly cooked meat, or, as some say, by milk, it is of the greatest possible importance to have all meat thoroughly inspected, and,

if contaminated, it should at once be rejected. Here the principles I laid down as to the public bearing a share of the expense, are directly applicable. The man who sells the animal to the butcher may be unaware of the fact that his beast is the subject of tubercular disease, but neither he nor the butcher should have any temptation to dispose of meat that is dangerous human food. No doubt, thorough cooking will diminish the risk, but it would be infinitely safer that the inspection, as presently carried out, should be made as efficient as possible, and that there should be no pecuniary temptation to help in spreading disease. During my time as examiner, I was startled occasionally by the appearance on the table of the pathologists, of diseased meat which had been seized and condemned, and was now submitted to the inspection of the student.

With reference to the prevention of disease, there is one practical matter on which I desire to say a word on this fitting occasion. Not long ago we had a scare of rabies in Partick. Whether it was justifiable or not I shall not inquire, but a dog was killed, and its head sent to my laboratory, where the pathologists proposed to carry out a few experiments with the view of ascertaining whether or not the animal had really died of rabies. This could only be ascertained by injecting into a rabbit fluid (saliva, blood, &c.) taken from the head, and if the dog had died of rabies, characteristic symptoms would soon appear in the rabbit. My laboratory was chosen to be the scene of the investigation, because it is one of the few places in Glasgow licensed under the Vivisection Act, but as I thought it was an unsuitable place for the study of rabies (the danger of contagion being great), I would not consent to the investigation being made in my rooms. I believe the head had to be sent to London or Paris because there was no place in Glasgow where the investigation could be carried out. I think the mere statement of this fact shows that the municipality of a great community like Glasgow should, under the supervision of their able medical officers of health, have a suitable isolated laboratory in a country district near Glasgow where such work could be done. This defect in our public health arrangements also came under my notice in connection with the serum treatment of diphtheria which has recently attracted much attention, and which is, on the whole, so efficient that a medical man meeting with this terrible disease, for which his remedies are so few and ineffectual, would be desirous to give at all events his little patient a chance by the sub-cutaneous injection of the prepared serum of the horse. But it is difficult and costly to get this fluid. It can only be got in small quantity, from Paris or London, and after a delay of hours that may be precious in the race for life, while there is no reason whatever against the remedy being prepared in an institution near Glasgow.

Gentlemen, I now draw this address to a close, after having made great demands on your patience. Let me wish you a prosperous session. Be gentlemen in your conduct, be earnest in study and in the acquisition of knowledge, and take advantage of every opportunity this college affords of enlarging your professional experience. You will thus prepare yourselves for an honourable and useful career in life.

## NORTH OF ENGLAND VETERINARY MEDICAL ASSOCIATION.

THE last quarterly meeting of the above Association was held at the Empress Hotel, Sunderland, on Friday, November 15th. The President, G. M. Mitchell, M.R.C.V.S., was in the chair, and a large number of the members of the Society was assembled. The members present were: G. M. Mitchell, Esq., President, C. Hunting, F.R.C.V.S., South Hetton; C. Stephenson,

F.R.C.V.S., Newcastle; J. E. Peele, F.R.C.V.S., Durham; J. W. T. Moore; F.R.C.V.S., Newcastle; Veterinary-Major Durrant, H. Hunter, Newcastle, David Dudgeon, Sunderland; J. G. Deans, Bishop Auckland; C. S. Hunting, South Hetton; J. Gafton, North Shields; George Elphick, Newcastle; W. Hunter, Newcastle; A. Hunter, Newcastle. Visitors: Professor W. O. Williams, Edinburgh, and P. Moir, Edinburgh.

After the reading of the minutes, the PRESIDENT nominated Mr. G. Craik, Alnwick, for membership; seconded by Mr. STEPHENSON.

A short discussion on "Notification of Infectious Diseases" was opened by Mr. G. ELPHICK, who stated that the returns from the veterinary profession forwarded to the Council regarding this subject had not been satisfactory, being few in number, some burdened with stipulations, but mostly in favour of the adoption of notification of disease. The Council felt disappointed, as it was extremely desirous not to commit the profession in any way on this subject without having further knowledge of its wishes and ideas.

Mr. GOFTON, North Shields, disapproved of the profession taking notice of the request to opinionate on the question of notification until they knew what it meant. Was it to apply to all diseases in the lower animals, or only to those already scheduled? Who was to certify the notification was correct? Was it to be made to a local inspector, or local authority, or to be forwarded direct by the practitioner to the London Board? He could see a considerable amount of good in the proposed scheme, but thought a great amount of friction between a veterinary surgeon and his clients might be avoided were the clients compelled also to notify as well as the veterinary surgeon. Was it to be a law adopted by all local authorities? He would most certainly decline to give his opinion until he knew more of the details of the scheme.

Mr. DUDGEON, senr., was inclined to think that the diseases meant to be notified, were those already scheduled. Glanders and farcy seemed to be the diseases that more particularly called for this Notification Act. He begged to move that—"It is the opinion of this meeting the time has not arrived for compulsory notification, to be made by veterinary surgeons."

Mr. W. HUNTER seconded the motion. He felt constrained to say that he had no faith in the scheme. It would not benefit veterinary surgeons, would cause great dissatisfaction to clients, and as for the pittance offered, he would not accept it. The seeming necessity for notification was simply due to the want of liberality by the Government, in not giving compensation sufficient for cases of glanders and farcy. The disgraceful way the profession has been used also made him very chary of having anything to do with Government schemes.

Mr. HUNTING, senr., moved a direct amendment. He considered this was a question the profession should not take up in a narrow-minded spirit, but in a dignified manner, looking not to their own, but to the interests of the country. He certainly thought that it should be made compulsory for owners to call in the veterinary surgeon before notification was made.

Mr. C. STEPHENSON seconded with great pleasure the amendment.

Mr. H. HUNTER also supported the amendment, and pointed out that the fact of notification being compulsory threw no odium on the practitioner when he did his duty, which their clients would recognise.

Mr. G. ELPHICK strongly advised the meeting to acquiesce in a kindly spirit to a notification scheme. By doing so they might be getting in the thin end of the wedge towards securing some of the inspectorship appointments they all felt so sore about. Most certainly, to act in a contrary spirit was impolitic. The interests of the public, moreover, should be studied. There seemed to him to be difficulties regarding the local inspectorships, and he thought they should be held by men not in active practice, they being less likely to collide with brother practitioners. Regarding the notification of tuberculosis and glanders, they were eminently diseases that could be categoried as

"suspicious" and suspected cases, could be isolated until unmistakeable proof was afforded, as to the existence or otherwise of these diseases.

Mr. H. HUNTER coincided with the views of the speakers to the amendment of the motion, by his friend, Mr. Dudgeon, that they should not approve of a notification Act at this time. Some years ago he was called into a very serious outbreak of glanders, and he now felt that compulsory notification would have very much strengthened his hands. He hoped soon to be placed in a position to announce that compulsory notification was in force.

On the amendment and motion being put to the vote, the amendment was carried by a large majority, and was then put as a substantive motion and carried.

The election of office bearers for the ensuing year was next proceeded with. Mr. A. Chivas, M.R.C.V.S., Corbridge, was unanimously elected as president, Mr. A. J. Dalgleish, Newcastle, as secretary, and as vice-presidents Messrs. C. Stephenson and J. E. Peele, F.R.C.V.S.

Professor W. O. WILLIAMS, New Veterinary College, Edinburgh, next gave the following paper on influenza in horses.

Mr. President and Gentlemen,—I have to thank you for the honour you have done me in asking me to read a short paper to you on that seemingly ever-present disease, influenza.

It would be as well in commencing, to make ourselves certain what influenza really is. In my opinion the name is used in much too lax a manner, and is made to cover all forms of illness which are characterised by sudden and great prostration, and perhaps by respiratory complication.

To my understanding, influenza is a generic term applied to one or other of several specific contagious and infectious diseases. To begin with we have: pink-eye, acute catarrh, pneumonia, pleuro-pneumonia, acute enteritis, and lastly a typhoid form of seeming general debility. It will hardly be necessary for me to tell you the symptoms as usually seen when anyone of us is called in to see a case, but I might perhaps mention my own experiences, and you will then be able to know how at least one can be deceived. In 1882, a horse came to the college with a swollen and running eye—the near one. My first opinion was that it was ophthalmia from an ordinary cold or injury. Next morning I found it to be typical pink-eye and this was the forerunner of an extensive outbreak. Two or three years after I was called to see a horse which had been off work for a couple of days, and whose legs had got gummy. I saw him; his legs *were* thickened; he was fresh, and could lift his feet too well to be comfortable for those near him, and I gave him a dose of physic. In the afternoon I was again called in and found him in mortal agony—temp. 105°; pulse very rapid; m.m. injected, eyelids swollen, and every usual symptom of pink-eye accompanied by acute abdominal pain.

I gave him anodynes, but he got no relief, and died the next day.

Now in this case I am of opinion that if he had not had the physic, the effects of the poison of pink-eye would not have been concentrated in the bowels, and he might have recovered.

One most distinctive sign of influenza is the suddenness of the onset. It is no rare thing to be called to see an animal which worked all yesterday, ate its supper at night, and yet in the morning is unable to walk without staggering and even falling. Such cases are often reported by the horse-keepers, as supposed injured backs, and we frequently have to float them to the College Infirmary.

On examination of such cases we find high fever and torpidity of all the organs, but no special lesions, such as pneumonia or pleurisy, though in some few cases there *are* lung complications in the course of next few days, but in many others I have seen the temperature to drop from 106° to 101° in twenty-four hours, and never to rise again, and the animal proceed with a rapid

recovery. The late Professor Lewis, when he became hospital surgeon at the College, made up his mind to carefully observe the difference between the methods of treatment as recommended and adopted by Principal Williams, and the methods which he had seen adopted in his younger days; and I never shall forget his telling me about one particular case of influenza with lung complications which he attended. He had been treating the animal for about a week, and it had almost recovered, but was extremely weak, and the respirations were naturally increased in number, but he (Professor Lewis) was perfectly satisfied that the lungs were sound and the animal convalescent. On the same evening he was called to see the animal again, and as soon as he entered the stable, at once saw that the patient was much worse and suffering pain. On enquiry he learned that the owner, on his own responsibility, had rubbed both sides of the chest with mustard, "just to heat him up a bit."

Professor Lewis told the owner that the horse was dying, and, on further examination, discovered that he had acute pleurisy, and this was confirmed the next day when the *post-mortem* was made.

Professor Lewis assured me that there was no pleurisy present in the morning, and was convinced that the mustard had induced it.

Not very long ago a healthy horse's sides were rubbed with mustard, and the next day he had pleurisy, which was positively proved by the *post-mortem* examination.

Quite recently Mr. W. R. Davis was called in to see a bad case of influenza, and on his arrival discovered the owner rubbing some embrocation on the animal's side "to warm it." Mr. Davis told him to desist, and just to watch what would happen in a few minutes, and in a very short time the animal exhibited signs of great pain, and began to blow and perspire. The irritant was washed off, and the animal soon settled, and in a few days was convalescent, and is now at work. I remember, many years ago, being a great believer in a certain drug for influenza pneumonia, and, in the absence of my father, happened to have a bad case. Well, after diagnosis I ordered fomentations, and administered aconite twice a day. It seemed curious to me that, though I had placed the animal in a loose box, gave it every attention *and* aconite, it still got worse. Fortunately, my father returned on the Saturday night, when I was in despair, and I immediately took him to see the case, and he, after examination, altered the treatment. We drove away together, and after a few minutes of silence, he said, "Look here, young man, you have been trying to kill that horse with aconite." I, if it were possible, blushed, and said I had orthodoxically been giving that drug, but had begun to think it wasn't much good. To make a long story short, the horse recovered, but certainly was nearly killed by my administration of aconite.

Perhaps after giving you a few of my experiences and those of my friends, you will permit me to give my present day views as regards influenza, and we may then discuss them. I am of opinion from several years' experience, that the primary cause of all forms is insanitary surroundings.

I feel convinced that if every stable were perfect, the disease would soon become unknown, but at the same time I do not deny that it may become panzootic from one single stable. From my experience the disease is enzootic to many stables and may from them become panzootic or only epizootic.

We have in Edinburgh several stables in which so-called influenza occurs yearly, but from pecuniary and other reasons, we cannot get these stables altered, and have consequently yearly outbreaks.

Having now given you a sketch of the disease, it would be well to give you my ideas as to its cause. I might state that 35 or 36 years ago my father recognised it as a disease that was bound to run its course, and one which could neither be retarded nor hurried, as regards its termination, and at the same time he was convinced that if an attempt were made to do either the

one or the other, the results would be unsatisfactory. In my opinion—not as a bacteriologist but as an ordinary practitioner—I think there are two causes of the disease known as influenza.

The first cause is the emanation of gaseous exhalations from certain sources which might be removed or destroyed, by proper drainage and ventilation; it more frequently happens that the patient is removed from the cause, than the cause being removed from the patient. If you take a bad case of influenza from a bad stable and place it in a good loose box, it will recover without much medicine, but remember, though I say without much medicine, I mean without much "so-called medicine." Such cases require the greatest care and attention, and though they get little or no quantity of drugs, they must be watched from stage to stage of the disease, and it is only the practitioner with the large heart, and the self-confident heart, who can see them nearly dead without giving them something or other to "back them up," and even yet desist and perhaps shortly afterwards heave a sigh of relief and say to himself, "Well, I didn't nearly kill him." The weak-kneed man usually, as far as I have seen, kills them with kindness and medicine—both good enough in their way, but still weak-kneed and unscientific.

In these cases then which I look upon as ptomaine poisoning, with sudden and great depression, great fever and utter collapse, I would and do advocate immediate removal to a place where the sanitary conditions are as nearly perfect as it is possible to obtain. As regards medicine I would administer an antiseptic; furthermore, I would put on warm clothing and bandages, have plenty of cold water at hand for him to drink at any time, and if there be any appetite, would offer some sloppy food; but I am most strongly opposed to the administration of large doses of stimulants, or of drenching them with gruel or milk. I think that if they won't take food themselves, that it is almost cruel to force food upon them; it nauseates them, and poor brutes, though they want to vomit they can't, and so must suffer all the more.

Now to the second form. It is one in which not only is the ptomaine of the disease absorbed into the system, but one in which the organism also gets entrance, and in these cases there is no chance of a sudden recovery; the disease will and must run its course.

Now I take it that Nature tries to eliminate the poison either by the bowels or by the lungs—most frequently by the lungs, and consequently we have a congestion of those glands—later on an inflammation—and then the disease is known, as the pneumonic form of influenza.

In other cases the poison seems cast out into the cellular tissues, and we have pink-eye. Now I would specially speak about the pneumonic form.

It is one enough to frighten any practitioner; the prostration is so great that death seems imminent.

In the olden days my father used to give a small dose of aloes, rowel the breast, blister the sides, used sometimes large quantities of stimulants, and bled them, but they died in spite of all this.

Now, for the last thirty odd years, mustard and whiskey are things never dispensed with us.

Fresh air—no contamination—has been the secret of success in the very worst form of disease, but it requires great nerve to resist "doing something" when they are seen to be on the point of death, and it is that "doing something" which braces them up for the while, but which in a few hours puts them still further back, that is the cause of the great mortality.

There are at present two cases in the College which were most seriously ill, and which in the old days and treatment, my father tells me, would have been dead in a couple of days, yet they have received hardly any medicine, and are now convalescent.

The PRESIDENT said that he, and he was sure all present, felt much indebted to Professor Williams for his extremely interesting and practical paper. In his own practice of late he had had several cases of pneumonic influenza, which fortunately had done well. Many points had been submitted to them, in the paper just read, well worthy of discussion, and he therefore invited the members present to discuss it frankly and fully.

Mr. HUNTING, sen., thanked Professor Williams for his most sensible paper, and fully agreed with him that medicine and blistering, in this disease, frequently did far more harm than good. Fresh and pure air, combined with gentle exercise, were the sovereign remedies for influenza. He did not quite agree with all they had been told. It would be extremely awkward, when no medicine were given, if a patient should die. Such an occurrence would be very detrimental to a practitioner's reputation. No harm, even some amount of good, would be done by even making up a common electuary, and placing it on the animal's tongue. He had great faith in nursing, and removal from the stable. When a good stable or box could not be got, he had many times put patients into a field or stackyard, procured carts and stuck them up on end, then roofing them with a stack-cover. Giving patients exercise he believed was efficacious. Dozens had he seen, with each leg as big as four, that recovered, and he believed mainly due to the exercise given. He had grave doubts whether sanitation had much to do with causing influenza, as he had seen the worst of cases in the best stables, with splendid sanitary arrangements. Professor Williams had hit the nail on the head when he said we must have patience. He believed in *bis medicatrix naturæ*, and that once you get the digestive organs to act, with handfuls of grass, carrots, etc., cases will quickly recover.

Mr. H. HUNTER considered the paper that had been read was full of points for their consideration and discussion. He endorsed Mr. Hunting's ideas as regarded the influence of sanitation in this disease, as he had been called in to treat many cases of the worst kind in stables that no fault could be found with. There was something beyond that which determined the occurrence and the degree of illness. He questioned how the application of mustard could cause pleurisy. He could not believe it was possible, and thought it must have existed before the application of the mustard. On his own person he had experienced great relief from counter-irritation, as he had been a great sufferer from chest affections. In pneumonia in horses he had frequently seen marked improvement from blistering, and thought that cantharides was better than mustard, as its effects were more lasting and not so violent. The medicines he used were spts. nitr., ether, liq. ammon. aromat., occasionally digitalis and ammon. carbonate. They were not given in laryngeal or pharyngeal affections, and were always carefully administered, sometimes with linseed tea instead of water.

Mr. DEANS, as a young member, asked Mr. Hunting how the removal of horses affected with influenza from good stables, well-ventilated, etc., to other stables or the open air, was likely to benefit them. He could see the likely benefit were this done where stables were faulty.

Mr. HUNTING replied that, in his opinion, patients should always be removed from a place containing the germs of disease, as in sickness in a house, when the medical man removed his patient to another room.

MAJOR DURRANT agreed with Mr. Hunting in the very beneficial effect of the removal of influenza cases from their usual stables, also that gentle exercise was frequently of benefit. He gave very little medicine, indeed, in the army they were not supplied with much of it. Simple remedies, such as potass. nitr. and soda salicylate, combined with careful nursing and attention, he recommended. He would like to ask Professor Williams his percentage of

recoveries. In the army the mortality from influenza was ½ of 1 per cent.

Mr. A. HUNTER agreed with all that had been said as to the removal from stables, but it was not always practicable. He deemed it dangerous, however, to subject patients to severe weather, when that was the only alternative offered. He believed in giving medicines, such as ether liq. ammon. and even aconite, also in the application of blisters, and would always do so. He could not get over the fact of the good that blisters, more particularly fly blisters, had so often done himself, and to them he attributed the preservation of his life.

Mr. W. HUNTER, while thanking Professor Williams, could not agree with him on many important points. He believed influenza to be due to a germ that might linger for months, even years, in a stable. He believed in the application of mustard, but at the same time thought it was frequently overdone. The application of ½lb. of mustard could do no harm. This week he had attended two cases of influenza. In one, the temp. was 106°, pulse 72. Bronchitis, a hard dry cough, great prostration, and inappetence were present. He applied mustard to the sides and gave medicine, and the temperature had fallen to 101° and the patient was out of danger. In the second case the temperature was 106 1-5th, pulse 72, and symptoms similar to the other; was treated in a similar fashion and with like good results. Regarding the water given to drink, he was most particular that it should not be cold, while the removal of patients in this disease was what he always insisted on. Ammon. carb., potass. carb., potass. nitr., and digitalis were the medicines he mostly used, and these two and three times daily.

Mr. PEELE enquired from Mr. Hunting, if the cases he had referred to in his practice, recovered, and was informed in the affirmative.

Mr. PEELE proceeded to advocate the value of pure air, no counter-irritation, and the use of a compound of ammon. bicarb. and quinine, which latter he considered a good medicine in influenza.

Mr. MOIR stated that his experience of influenza in horses extended over a considerable period of time, and that he felt quite sure that the many cases of disease then termed influenza, which came under his notice thirty to forty years ago, did not present such well-marked specific symptoms as were shown in the outbreaks of influenza, otherwise pink eye, at the end of the seventies, and since then at different periods. If both were the same disease, then the type of it had distinctly altered. His opinion was that the disease more lately in evidence has been the true influenza, due to the presence of a specific micro-organism or bacillus in the systems of those affected, and the same disease that has affected mankind. The isolation, cultivation, and inoculation of the bacillus by bacteriologists, have placed the cause of this disease beyond a doubt. He agreed with Professor Williams that defective hygienic conditions frequently induced fever, great depression, loss of appetite, and symptoms generally that resembled those of influenza, but which, strictly speaking, were not those of true influenza. These cases, if removed from the cause, viz., the malaria, etc., of unhealthy stables, would, as a rule, quickly recover with very little help from medicines, were they stimulants external and internal. Indeed, his experience was, after having practised and also seen some variety of treatment, that influenza, in any form, is best treated without stimulants and blistering. He recollected, during the pink eye outbreak in Manchester, in 1890-91, seeing a large stable full of horses in various stages of the disease. The owner had lost many, but had become so tired of the want of success of his veterinary surgeon, that he had ceased to call him in, and found he was much more fortunate. Although the weather at the time was very severe, by turning out the horses to whom the disease had not extended, the owner was satisfied that he had stopped its progress. On further inquiry he had found that the active form of treatment had been that

pursued, and he thought that a remarkable proof of the value of pure air had been demonstrated. Mr. Moir stated that it had been his lot to have large numbers of horses passing through his hands for sale, consigned from all parts of the country, and from Ireland and Belgium, Many of them came into his stables from time to time in urgent need of medical care, and as he considered it politic not to take any responsibility as regarded treating them, with the exception of their removal to the care of a veterinary surgeon of recognised ability, he had been afforded many opportunities of observing the success that attended Principal Williams' treatment of influenza, to whose college all his serious cases were removed. His son to-day had given them in his practical paper, the line of treatment pursued by his father and himself, and he was pleased to be there to testify to the soundness of it, as shown by its success with the many cases of undoubted pink eye, and many with pneumonic complications that were successfully entrusted to their charge. He assured the meeting there were many cases for which he would not have given more than the prices of their skins, that, to his surprise, recovered. He admitted that, having been educated by Professor Dick to apply blisters when the breathing was hurried and indicated that the lungs and pleura were congested or inflamed. and to take blood from the jugular vein in the early stages—the latter a practice which had long been discontinued—he viewed with some amount of concern what seemed to him to be the do-nothing treatment. The counter-irritation to the sides, the front of the chest, larynx, and trachea had been abandoned by the Principal, as also the giving of stimulants, and as "Facts are stubborn chiels that winna ding," he had been thoroughly convinced that Principal Williams's teaching and practice were correct, and that the old style was wrong. Under the latter he had seen many fatal cases, but very few, almost none, under the system advocated by the reader of the paper.

Mr. ELPHICK recommended the humane treatment, and on that account seldom or ever blistered influenza cases, and thought he was as successful as those who did so. He did not think that any line of treatment could avert the death of some cases.

Professor WILLIAMS replied briefly. He was gratified that Mr. Hunting and other speakers agreed with many of his opinions, and he assured Mr. Hunting he fully recognised the importance that something should be done or an appearance of doing something to satisfy clients, as they all had to earn their livelihood. At the same time in Scotland they did not seem to find it necessary to make this point so much of a study, as appeared to be required in England. He had met with cases of influenza in good stables, but had always found his first cases in faulty stables, such as those of small contractors. In reply to Major Durrant he could not specify his percentage of recoveries exactly, but he could say that he could hardly remember when his father and he had last a case of influenza excepting those he had cited in his paper. He had a few years ago temporary charge of the cavalry horses near Edinburgh on which occasion, with the exception of the first case, which was dying when it was given over to his care, there were about 80 horses confined to barracks suffering from influenza, not one of which died. He begged to thank the President and members of the Society for the very kind way in which they had received his short paper. He drew it up more for the purpose of eliciting a friendly and profitable discussion, and therefore had subordinated the theoretical to the practical.

Mr. H. HUNTER, seconded by Mr. PEELE, moved a hearty vote of thanks to Professor Williams, and the proceedings terminated with a vote of thanks to the President proposed by Mr. ELPHICK, for the excellent service he had rendered the Society during the past year.

## MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

(*Continued from page* 363.)

I DON'T believe the vitality of the virus is very great outside the living animal, for we notice how soon the disease runs its course in a district or kennel, and, when the susceptible animals have passed through the attack, the disease disappears, and if the ordinary methods of cleansing and disinfecting are properly carried out, the disease does not re-appear when fresh healthy animals are brought in. I am also convinced that when the disease has been located in a district for some time that the virus becomes attenuated or weaker, and that less power of resistance on the part of dogs is required to avoid an attack. This is confirmed in practice, for I often find that the first few cases of the disease are the most difficult to combat, and that the fatalities are more numerous than when the disease has passed from one to another for a few weeks.

I have talked about the treatment of the disease, but I would prefer to call it the management of it. The first thing is the necessary accommodation. No veterinary surgeon who lays himself out for dog practice should be without a properly-constructed set of hospital kennels at or near his infirmary. These may be put up at a moderate cost in the following way:—Given a blank wall, ten feet high and ten yards long, with a south or south-west aspect, you will then have room for ten boxes three feet high, which should extend forward ten feet. The shore roof should extend at least a yard over the front of the boxes to prevent snow or rain beating in. The partitions should be extended to the roof and be of pickled wood—*i.e.*, wood saturated with creosote or carbolic acid, The roof should be constructed by first covering with half-inch match-boards, on which should be nicely placed some piling straw, about an inch deep, and upon which some corrugated iron sheets should be fastened. This form of roofing I find to be cool in summer and warm in winter. The floor should be laid with dust bricks or floor quarries, well bedded in cement to insure dryness and facilitate cleansing. At the far end of each box should be a stage for the animal to sleep upon. The front should be of light iron-work from top to bottom, with a door in the centre. These can be procured to order and measure from Bolton and Paul at reasonable cost. I have perhaps, been wasting your time in describing the sort of kennel you should have, but I hope you will be induced to try them, because they are the most suitable dog-boxes I have seen. I forgot to say that a canvas blind on roller to each box is very useful. If our clients see the conveniences you have, and the care that is bestowed upon their animals, they never hesitate to send them into hospital, which is an immense advantage to us. When we are called in to see a dog with some of the premonitory symptoms of distemper, it is almost impossible to make a correct diagnosis owing to the presence of the lady owner, or to the shyness or peevishness of the patient, and we have often to waste half-an-hour in getting on terms with it. This is all avoided by ordering him to be sent into hospital, where, at your leisure you can soon get upon good terms with him and correctly diagnose his malady. Given that you have distemper to deal with which has not run on to any complication, the first thing to do is to see that his kennel is a proper temperature (as near 60 degrees F. as possible); also see that he has a good bed of clean straw sufficient for him to hide in if he likes. Administer a mild laxative—salts and senna. Make his eyes and nose clean; and put a few drops of terebine or eucalyptus on to a sponge, and let him inhale three or four breaths. This cleansing and inhalation should be done three or four times a day. The evacuations should be immediately disinfected with sulphate of iron, and the floor dredged with chloride of lime. The food must be of the lightest—*boiled* milk thickened with arrowroot,

chicken broth made by stewing an old broody hen to a pulp, and a little bit of fish and occasionally a dry milk biscuit is all that is necessary. His water should be frequently changed and given cold, iced if necessary. After the bowels have been nicely moved, I find a mixture of tinct. gentian co., sp. æther, nit. and liq. ammonia, acet. conc. in equal parts, given twice or three times a day, is all that is required.

While talking about what should be given as medicine, it may be well to say how it should be administered. We have all experienced the difficulty and danger of dosing little pet dogs, especially if they have been periodically dosed with buckthorn and oil. The best way is to put a tape round the mouth and tied behind the ears. Then let your assistant take the fore-legs in one hand and the hind-legs in the other, turn him on to his back, or if necessary suspend him in the position; and I generally find they will swallow the draught without resistance.

With this management nature is generally able to throw off the disease, and the patient is left very prostrate. Now is the time to increase the nutritive value of the food, but on no account give medical tonics or stimulants. If the appetite has not entirely failed, white meat, such as rabbit, chicken, well-cooked calf's foot will suit the case; but if the patient refuses food, then we have a valuable preparation in "Brand's Essence," which I have found of immense value in such prostrating diseases. During convalescence a vegetable tonic pill twice a day will be beneficial.

I think I have said enough to weary you about the management of simple distemper, and will now briefly allude to the complications. I say briefly, because the rules laid down in my management of the simple form in great measure apply to the complications, especially as to feeding and sanitation.

*Pneumonic.*—Put on a mustard and linseed poultice over the whole thoracic surface, and keep it on for five or six hours. Then make the skin clean with warm damp cloth, and envelop the chest in flannel stitched along the back, with holes cut for forelegs. Eyes and nose frequently sponged with warm water, and a little stimulant in the form of whisky and water every three hours. If the cough is very troublesome, I give a few drops of chlorodyne with benefit. If the temperature is very high, I give one good dose of quinine with good results.

*Bilious.*—This is often a very troublesome form of the disease, and will prove fatal frequently in spite of our best endeavours. I put the animal into a warm bath up to his shoulders when sitting down, the heat of which should be about the normal temperature of the body, and well coloured with mustard. Keep him in for twenty minutes unless exhaustion comes on, and have him made thoroughly dry afterwards. Then apply a little ammonia liniment over the region of the liver, and give small doses of nitro. hydro. chlor. in linseed tea. In this disorder it is necessary to keep an eye on the bowel action, as the natural aperient is absent. I find that linseed tea, with an occasional glycerine suppository, is the best method.

*Enteric.*—This, as I have said, is nearly always of septic origin and is more frequently seen in cases that have been left to themselves, and where injudicious feeding has led to decomposition of food. If we suspect overloading of bowels and have tympany as a symptom, we must first endeavour to evacuate their contents without prostrating the patient. The best way is to give a little senna tea and peppermint, and rub on the skin covering abdomen some ammonia liniment. When we have overcome the distention, we have recourse to such agents as chlorate of potash, Condy's fluid, &c. I have found great benefit from the frequent use of coffee, a strong decoction of which may be used as a vehicle for medicine.

If we get tenesmus then I use belladonna suppository. In this form of the affection we must not allow any solid food. Barley water may be allowed

*ad lib*, and the strength sustained with "Brand's Essence," which is so easily assimilated and does not become putrid after swallowing. If the animal is very prostrate, brandy and soda may be given.

Cinnamon has a good effect in restoring the bowels to healthy action, but why it should be better than other barks I cannot explain.

It is highly desirable that the evacuations should be immediately removed and burned if convenient.

*Nervous.*—I have now come to a form of the disease that nearly always kills or maims our patient. Take the hair off the whole length of the dorsal and cervical vertebrae, and put on strong belladonna plaster, stimulate legs and feet with mustard, use belladonna electuary if the fits are frequent, and keep in a dark box.

*Sequelæ—Shedding of hair.*—This is sometimes very troublesome, and requires time and attention. Give tonics, shampoo often with warm, soft water, soft soap, and borax, rinse in tepid water, rub dry, and brush frequently or rub with dog glove.

*Pustulous Eczema.*—Give small doses of arsenic, bathe affected parts with bran water, and use oleate of zinc.

*Weak Eyes.*—Give tonics, foment with milk and water, and use weak solution of sulphate of zinc. If the cornea shows signs of ulceration, put a thread seton through the skin between back of eye and ear, and apply weak solution of chloride of zinc to the ulcer.

*Deafness.*—This is nearly always permanent from perforation, but, as it sometimes arises from accumulation of wax, it is wise to try the effect of oiling internal ear, and syringing with warm water.

*Chorea.*—This I have always looked upon as a chronic affection, but I am told that arsenic will cure it in the human subject, and I shall take the first opportunity I have of trying it in the dog. Nux vomica has been frequently recommended in this disorder, but I find the dog is very susceptible to its toxic effects, and it should always be given cautiously.

I must apologise for a very uninteresting paper. I have given more time to details than may appear necessary to most of you, but I wish to impress upon the younger members the fact, as it appears to me, that in casting out into the deep waters of theory, we are leaving fallow a field that is rapidly becoming the playground for keepers, dog-dealers, fanciers, and patent medicine vendors.

*Discussion.*

Mr. MALCOLM led off. He said it was very seldom that he had anything to do with distemper; nevertheless, he was very much interested in it. He was quite in accord with Mr. Carless's definition of distemper, but he had not been so fortunate as Mr. Carless in being able to trace every case to its predecessor. He had, however, no doubt about there having been a predecessor, even though he had failed to trace it. Like Mr. Carless, he also believed that no breed of dogs was exempt from the malady. He was not speaking from personal experience in saying that the better breed of dogs suffered more than the common breed, but it was the general opinion that such was the case. He thought there was scarcely a disease in the whole domain of veterinary science about which they knew much less, for it assumed so many different forms. Mr. Carless had dwelt upon the treatment of the disease and the great necessity of good accommodation and good nursing. He (the speaker) thought there was nothing of greater importance in the successful treatment of distemper than good nursing and good accommodation where the temperature is maintained at a proper level. Recently, with a dog of his own, instead of giving him any medicine for distemper, he kept him in a place at a regular temperature and gave him light food, with the result that he made capital progress.

Mr. GOOCH said he did not see a large amount of dog practice, although he thought it paid the practitioner extremely well. If there was a disease which required nursing, good sanitation and proper management, it was distemper in the dog. His experience was that the bilious form of the disease was the most fatal. Nine-tenths of the bilious cases he had treated had terminated fatally. As to medicine, he found it answer best in the form of a pill, as it was easier to administer, particularly in the case of a small dog.

Mr. CROWHURST was certainly of opinion that the more highly bred the dogs, the more severely were they attacked. He remembered some greyhounds of a particular breed having distemper regularly, and on crossing the breed, they suffered from the disease no longer. He believed in kindness and good nursing being the foundation of the treatment.

Mr. GREEN said he was seeking information on the subject. For years he had been of opinion that the more valuable and the better the breed of the animal, the more susceptible it was to some form of distemper. The cur that was running about seldom died of distemper. He had had most trouble with foxhounds and greyhounds. He had tried all sorts of remedies, but the animals kept dying. He seldom administered stimulants, such as whisky, &c. With regard to the treatment of chorea, he had for some three or four years had the benefit of a medical friend's advice, and he suggested the use of arsenic. He formerly relied on nux vomica, and that sort of thing. He now recommended ¼ of a grain of arsenic three or four times a week, with good results, but he could not rely on arsenic as a sure and certain cure. In the case of ulceration of the cornea, he had used a solution of zinc. He had tried the seton spoken of, but it was such a trouble to the dog that he had left off using it, and instead he had touched the part affected with nitrate of silver, with better results.

Mr. BARLING said his worst experience had been with foxhound puppies. In the South Hereford Kennels they had lost a great many. Nearly every case was in the jaundice form, and almost everything they did was unavailing. Next to foxhounds, he had had most trouble with pugs, nearly eight out of ten of which got ulceration of the cornea. He found nitrate of silver was the best form of treatment.

Mr. BYNER did not think the malady arose spontaneously, in which opinion he was backed up by personal experience. The best treatment, to his mind was to nurse the dog properly, and give a small dose of nitrate of potash three or four times a day on the tongue dry. For chorea, he had tried nux vomica and arsenic combined, but had not had good results. He thought bull dogs and short-coated dogs generally suffered most from bilious distemper. As regards ulceration of the cornea, he did not believe in the adoption of severe measures. The best thing to do was to treat the patient antiseptically, and leave the rest to nature.

Mr. SMITH, in a very few words, said he most heartily agreed with the different treatments recommended.

Mr. GOOCH would like to ask the essayist a question which had escaped his memory. Had Mr. Carless ever tried electricity? and, if so, with what result?

Mr. PRICKETT said he looked upon the bilious form as the most difficult and uncertain. He agreed with the essayist as to the main principle of treating distemper.

Mr. GREEN also had a question for Mr. Carless. Did that gentleman think that contagion might lurk in bricks and mortar or the kennel?

Mr. BROOKE knew of a bad result of distemper, which had not been alluded to, and that was paralysis. He had just discharged a successful case of bronchial distemper, which he treated by steaming hay in a small bucket.

Mr. SMITH mentioned incidentally that he had obtained a marvellous

effect from the steam of water in which potatoes had been boiled.

Mr. WILSON said his experience was limited principally to greyhounds.

Mr. DAWES (Hon. Sec.) declared that Mr. Carless had treated the subject in such a manner that there was little left for them to discuss. He agreed that management was the thing. He thought lots of dogs died of distemper through having too much medicine given to them. The best thing was to have the dog at their own infirmary and then deal with it as they liked. If the dog were at its own home they must keep giving it medicine, or their client would think they were neglecting it.

Mr. J. BLAKEWAY (Hon. Treasurer) said they always got something good from Mr. Carless, who had on that occasion given them much food for reflection. He desired to raise the point as to whether there was ever a recurrence of distemper. Some people held that it did not recur, and a veterinary surgeon would often be asked if a dog had had distemper in order to satisfy the owner that it would not have it a second time. He (the speaker) believed that it occasionally recurred. In reference to the construction of kennels, he had found that in the summer time dogs with distemper were better treated in the open air, and in winter they should be kept in a room at a regular temperature—say 60 degrees F. He agreed with preceding speakers as to the efficacy of nitrate of silver, and proceeded to state that in his own experience it had been bloodhounds which had been most subject to the disease. A beneficial article of diet, to his idea, was raw eggs beaten up with new milk. In answer to Mr. Smith, he failed to see any special charm about the potato water, and thought it was best to add a little carbolic acid or tincture of myrrh when adopting the steaming process. He was taught at college never to touch the eyes at all, but whenever he found a discharge from the eyes, he always bathed them with warm water or milk and water.

Mr. COLLETT said he was not blessed with an extensive dog practice, and his chief distemper patients always died. Good sanitation, pure air, equal temperature, and judicious diet were what he considered the best remedies. He gave very little medicine.

The PRESIDENT, in closing the discussion, said he must personally thank his friend Mr. Carless for having come forward on that occasion with so interesting and instructive a paper. There were few of them but had had some dog practice, and there was no disease affecting that animal which was so common or so important, and he might even add so fatal as distemper. He had very little to say in contradiction of what Mr. Carless had already laid down, but he was very highly of opinion that the disease before long would be found to be due to a microbe. He was also satisfied in his mind that when that was so, the future treatment of the disease which was likely to be attended with the most success would be the antitoxin treatment, in which he, personally, had the greatest faith. With regard to the spontaneous origin of the disease, it was a very interesting question, and he for one could not say that it was not spontaneous. At the same time the manner in which the disease did arise from time to time is perfectly inexplicable if it were due to contagion. He also had found that the better the breed the more susceptible to the disease did the animal become. He agreed that the sanitary surroundings should be most perfect and the temperature even. The most fatal cases in his experience were those of the bilious form. He had come to the conclusion that foxhounds were the most likely victims. He recommended Easton's syrup, and was very partial to hot baths, but in the latter case the greatest care must be taken that the patient did not take cold.

Mr. CARLESS, in reply, agreed with Mr. Malcolm that it was difficult to trace the disease, but nevertheless it was traceable, and there was no doubt

that all cases ought to be governed by the same laws as other contagious diseases. It was very much the same as influenza in the human subject. It was caught somewhere, but you don't know where, and when it passed from the simple form it became a very serious matter. He thought nitrate of silver was a very good thing if the patient was in the infirmary. He thought sometimes a case could be traced to the sub-soil on which the kennel was built. As to the use of the electric battery, mentioned by Mr. Gooch, he tried it some years ago, but it occasioned such agony and fright to the patient that he could hardly get near it the second time. However, now that electrical instruments were in a greatly improved state to what they were at the time of which he was speaking, he did not see why good should not result from the use of electricity, especially in a case of chorea of a chronic nature. He thought distemper did recur, but not at short intervals, and the second attack was not likely to be a severe one. It reminded him in that respect of measles in the human subject. In regard to steaming he hardly agreed with it. He thought the inhalation of some little drug was better than steam, and produced the same effect. He was of the same opinion as Mr. Dawes, who said that the less they had to do with physic the better. In heating a kennel, he did not advocate the use of spirit lamps, as he believed they would find hot bricks or hot water bottles answer the purpose equally well.

Mr. MALCOLM proposed a vote of thanks to Mr. Carless for his very practical and admirable paper. He was sure it had been appreciated, and the fact that such a long discussion had been provoked pointed to the same conclusion.

Mr. GOOCH briefly seconded the vote of thanks, which was heartily accorded and duly acknowledged by Mr. Carless.

*Place of Next Meeting.*

Nottingham or Derby were at first proposed. Eventually, on its being stated that the Association were under an obligation to go to Worcester, it was resolved to hold the next gathering there.

A vote of thanks to the President for his services in the chair having been cheerfully passed, the members adjourned to another room and partook of a meat tea.

H. J. DAWES, *Hon. Sec.*

---

## THE CHARTER OF THE ROYAL VETERINARY COLLEGE OF IRELAND.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, and so forth, to all to whom these Presents shall come greeting:

WHEREAS the Royal College of Veterinary Surgeons, London, was incorporated by Royal Charter on the 8th March, in the 7th Year of Our Reign:

AND WHEREAS by Section IV. of the Veterinary Surgeons Act, 1881, 44 & 45 Victoria, cap. 62, It is enacted that the Royal College of Veterinary Surgeons shall be bound to make provision in the manner permitted by their Charters for the Examination in England, of the students attending the veterinary college there, and in Scotland of the students attending the several Scotch veterinary colleges, and in Ireland whenever a veterinary college shall be established in that country, and to admit and register such students as have passed the examinations as members of the said Royal College under the provisions of such Charters and the said Act.

AND WHEREAS it is desirable that a college for the instruction of students of the veterinary art and for the advancement of veterinary science should be established in Ireland for the following reasons:—

1. That Ireland may be regarded as a purely agricultural country, the material resources of which are almost exclusively derivable from its live stock, and, therefore, it is desirable that some impetus should be given to the study of diseases affecting domesticated animals of all kinds by having a centre for the investigation of such diseases and their treatment, and that such a centre of education would lead to scientific enquiries being made into the cause and nature of various epidemics of disease occurring amongst horses, cattle, and domesticated animals generally, a matter of great importance in Ireland, considering the great loss sustained by the country from such plagues as foot and mouth disease, pleuro-pneumonia, swine fever, and such like diseases.

2. That a recent Regulation of the General Medical Council requires that all candidates for the examination for the Diploma in State Medicine must produce evidence of having obtained instruction in the diseases of animals communicable to man, and that in the absence of a college for the instruction of students in such diseases, Irish students must go to England, Scotland, or elsewhere, to obtain the required instruction in these subjects, and, therefore, the establishment of a veterinary college would be likely to lead to researches being made, not alone as regards the origin and spread of epidemics amongst animals, but also as to the mode by which many infectious diseases are communicated by animals to man, and thus materially aid the progress of medicine in Ireland.

3. That the college would afford facilities for instructions to agricultural students and school teachers under the National Board of Education, and others, which would be of material use throughout the country, and the schools therein, in connection with the breeding, rearing, and feeding of animals, as well as affording an opportunity of acquiring a knowledge of the common forms of diseases occurring amongst horses, cattle, sheep, swine, dogs, &c.

NOW THEREFORE KNOW YE THAT WE being desirous to encourage a design so laudable, of Our special grace, certain knowledge, and mere motion have willed, granted, ordained, and declared, and do by these Presents for us, our heirs and successors will, grant, ordain, and declare that Ambrose Birmingham, of the Medical School, Cecilia Street, in the City of Dublin, Professor of Anatomy in the Catholic University; Thomas Carroll, of the Albert Model Farm, Glasnevin, in the County of Dublin, Agricultural Superintendent under the Board of National Education (Ireland); Daniel John Cunningham, of 43, Fitzwilliam-place, in the City of Dublin, Professor of Anatomy and Surgery, Dublin University; Alderman Valentine B. Dillon, of 7, Rutland-square, east, in the City of Dublin, Solicitor; William Field, of Blackrock, in the County of Dublin, Member of Parliament, and President of the Irish Cattle Trades and Stock Owners Association; Samuel Haughton, of 12, Northbrook-road, east, in the City of Dublin, Senior Fellow of Trinity College, Dublin; Thomas Drummond Lambert, of South Richmond Street, in the City of Dublin, Veterinary Surgeon, Fellow of the Royal College of Veterinary Surgeons; Christopher John Nixon, of 2, Merrion-square, north, in the City of Dublin, Professor of Medicine in the Catholic University, Ireland; William Thornley Stoker, of 8, Ely-place, in the City of Dublin, Fellow of the Royal College of Surgeons, Ireland; Joseph R. O'Reilly, of Sans Souci, Booterstown, in the County of Dublin, Deputy Lieutenant; Richard Francis Tobin, of 59, Stephen's-green, in the City of Dublin, Fellow of the Royal College of Surgeons, Ireland; Ex-officio the District Veterinary Officer in Ireland for the time being of the Army Veterinary Department; being twelve persons nominated by us. Walter Boyd, of 66, Merrion-square, south, in the City of Dublin, Judge of the Court of Bankruptcy; Thomas Pierce Butler, of Ballintemple, Tullow, in the County of Carlow, Bart.;

Charles Alexander Cameron, of 51, Pembroke-road, in the City of Dublin, Knight, Professor of Chemistry and Hygiene, Royal College of Surgeons, Ireland; Gerald Richard Dease, of Celbridge Abbey, Celbridge, in the County of Kildare, Colonel; Robert Fowler, of Rahanstown, Enfield, in the County of Meath, Deputy Lieutenant; John Freeman, of Harry Street, in the City of Dublin, Veterinary Surgeon, Fellow of the Royal College of Veterinary Surgeons; Walter Noel Hartley, of 36, Waterloo-road, in the City of Dublin, Professor of Chemistry and Dean of Faculty, Royal College of Science, Ireland; Mathew Hedley, of 6, Royal Terrace, Kingstown, in the County of Dublin, Veterinary Surgeon, Fellow of the Royal College of Veterinary Surgeons, Chief Inspector of the Veterinary Department of Our Privy Council in Ireland; The Right Reverend Monsignor Gerald Molloy, of the Catholic University of Ireland, Rector; William Pallin, of the Curragh, in the County of Kildare, Veterinary Surgeon, Member of the Royal College of Veterinary Surgeons; James Talbot Power, of Leopardstown Park, in the County of Dublin, Deputy Lieutenant; James Emerson Reynolds, of 70, Morehampton-road, Donnybrook, in the County of Dublin, Professor of Chemistry, in the Dublin University: being twelve persons nominated by the Council of the Royal Dublin Society. Edmund Gerald Dease, of Rath House, Ballybrittas, in the Queen's County, Deputy Lieutenant; Christopher Talbot Redington, of Kilcornan, Oranmore, in the County of Galway, a Member of Our Privy Council in Ireland; William Homan Newell, of 22, Lansdowne-road, in the City of Dublin, Esq.; and George Francis Fitzgerald, of 7, Ely-place, in the City of Dublin, Fellow of Trinity College, Dublin; being four persons nominated by the Commissioners of National Education in Ireland.

AND ALSO four other persons to be hereafter elected by the Subscribers, in accordance with the Bye-Laws to be made as hereinafter provided, and such other persons as shall from time to time be appointed or elected in the manner hereinafter directed, shall be, and forever hereafter continue to be, one Body Politic and Corporate for the purposes aforesaid by the name of "The Royal Veterinary College of Ireland," by which name they shall have perpetual succession and the Common Seal, with full power and authority to alter, vary, and renew the same at their discretion, and by the same name shall sue and be sued, implead and be impleaded, answer and be answered unto in every Court of us, our heirs and successors, and be forever able and capable in law to hold all property now belonging to or held in trust for or subscribed towards the Royal Veterinary College of Ireland, and also to take and acquire, whether by purchase, exchange, gift, bequest, or otherwise, and to hold, possess, and enjoy to them, and their successors as well, absolutely as for any term or number of years or other limited interests, any goods and chattels or other personal property whatsoever, and also be able and capable in the law (notwithstanding the statutes of Mortmain), to take and acquire whether by purchase, exchange, gift, bequest, devise, or otherwise, and to possess, hold, and enjoy to them and their successors as well in fee simple as for any term or number of years or other limited interests, an infirmary for sick animals, operating rooms, laboratories, libraries, class-rooms, a museum or museums, lecture theatres, dissecting, board, and committee rooms, official residence of the Principal or Dean, and other suitable and necessary premises and buildings for the medical treatment of horses and other domesticated animals, and for the education of students in veterinary science, and any other messuages, lands, tenements, or hereditaments whatsoever, the yearly value of which, including the site of the said premises, shall not exceed the sum of £4,000, computing the same respectively at the rack-rent which might have been had or gotten for the same respectively at the time of the acquisition thereof, and shall have full power and authority to dispose of and sell or exchange any goods and chattels or

other personal property, messuages, lands, tenements, and hereditaments in their possession, or so to be by them acquired, and to act in all the concerns of the said Body Politic and Corporate for the purpose aforesaid, and in carrying out the objects of the said College as fully and as effectually as to all intents, effects, constructions, and purposes whatsoever as any other of our liege subjects, or any other body politic or corporate in Our United Kingdom of Great Britain and Ireland, not being under disability, might do in their respective concern.

AND FURTHER, We do hereby expressly direct and declare, that nothing herein contained shall authorize the said Royal Veterinary College of Ireland to acquire any lands, tenements, or hereditaments beyond the extent or annual value hereinbefore provided, and that the acquisition in excess of such extent or annual value shall be void as to such excess, and not further or otherwise.

AND We do hereby grant Our special License and authority unto all and every person and persons, bodies politic and corporate (otherwise competent), to give, devise, grant, sell, give in exchange, demise, alien, and convey in Mortmain unto and to the use of the said college and their successors any messuages, lands, tenements, or hereditaments not exceeding such annual value as aforesaid, hereby nevertheless declaring that it shall not be necessary for such persons or bodies, or any purchasers, takers, or tenants of land and hereditaments from the said college, to inquire as to the annual value of the property which may have been previously acquired by the said college, but this declaration is not to enlarge the power of the said college to acquire messuages, lands, and hereditaments as aforesaid.

WE FURTHER declare that the number of the subscribers to the said Body Politic and Corporate shall be indefinite, with such individual privileges and subject to such conditions as shall appertain respectively unto each by virtue of these presents or by virtue of any Bye-laws to be made as hereinafter provided.

AND WE FURTHER WILL AND ORDAIN that all the students at the hereby constituted College shall be entitled to be admitted members of the Royal College of Veterinary Surgeons, London, after having passed the examination from time to time prescribed by the said Royal College of Veterinary Surgeons, London, and shall be subject to the Rules, Regulations, and Bye-laws of the said Royal College of Veterinary Surgeons, London, in like manner as the students at the affiliated English and Scotch schools, and for this purpose We do further will and ordain that the said Royal College shall be affiliated to the said Royal College of Veterinary Surgeons, London, in like manner as the present affiliated English and Scotch Schools, but with the same right of independent action and responsibility so far as regards its own internal actions and affairs; and WE DECLARE that the Governors shall be empowered to confer upon and grant to such of the students of the said College as they think fit annual or other Exhibitions, Scholarships, Medals, and other Prizes and Certificates of distinction. PROVIDED NEVERTHELESS that no such Certificate or other distinction shall confer the right to practise the arts of Veterinary Medicine and Surgery, or either of them.

AND WE FURTHER DECLARE that the government of the Royal Veterinary College of Ireland shall be vested in the Body Corporate, who for this purpose shall be a Board of Governors consisting of not more than Thirty-two members, of whom one shall be President, six shall be Vice-Presidents, and one shall be treasurer, the said President, Vice-Presidents, and Treasurer to be elected from and by the said Board of Governors in the manner to be fixed by the Bye-laws to be made as hereinafter provided.

WE FURTHER DECLARE that the Thirty-two Governors of the said College shall be appointed as follows:—Twelve members to be nominated by Us,

each and every one of whom shall hold his office during Our will and pleasure; twelve members to be elected by the Royal Dublin Society, each and every one of whom shall be elected in such manner and hold office for such term as the said Royal Dublin Society shall from time to time determine; four members to be elected by the Commissioners of National Education in Ireland, each and every one of whom shall be elected in such manner and hold office for such term as the said Commissioners of National Education in Ireland shall from time to time determine; four members by the Subscribers, each and every one of whom shall be elected in such manner and hold office for such term as shall be determined by the Bye-laws to be made as hereinafter provided.

WE FURTHER DECLARE THAT the President, Vice-Presidents, Treasurer, and Governors, for the time being, shall have full power from time to time at any meeting of their body (not less than seven being a quorum for that or any other purpose), to appoint or re-appoint such persons to be Trustees, Secretary, and also Principal of the said College, and Professors and Assistant Professors, Demonstrators, Hospital Surgeons, and other officers for such periods or such terms, and subject to such conditions as they shall think fit, in accordance with these presents.

AND WE FURTHER WILL AND DIRECT that all questions which shall come before the Governors shall be decided by the majority of the Members present and voting, and that the Chairman at any such meeting shall in all cases have a vote, and in case of an equality of votes shall have a second or casting vote.

AND WE FURTHER WILL, GRANT, AND DECLARE that the President, Vice-Presidents, Treasurer, and Governors for the time being shall have the entire management of and superintendence over the affairs, concerns, property, income, and funds of the said body politic and corporate, so as to carry out the objects and purposes of the said Royal Veterinary College of Ireland, together with the necessary power of appointment and dismissal of the officers and others who shall be appointed in or about the said college, and that in all cases unprovided for by this Charter it shall be lawful for the Governors to act in such manner as shall appear to them best calculated to promote the purposes intended by the college, and the said President, Vice-Presidents, Treasurer, and Governors shall have full power from time to time to make and alter Bye-laws, Rules, and Ordinances, so as the same be not repugnant to the laws of Our realm, or to the general objects and provisions of this Our Charter, or so as to prejudice or to interfere with the rights and privileges granted by Our Charter to the Royal College of Veterinary Surgeons, London.

PROVIDED ALWAYS that all such Bye-laws have been first submitted to Our Lieutenant-General and General-Governor of Ireland for the time being, and approved of by him.

PROVIDED ALWAYS, that it shall be lawful for the President, Vice-Presidents, Treasurer, and Governors (if they shall so think fit) from time to time to appoint from amongst their own body a General Purposes or Executive Committee, of whom the Treasurer shall always be one, and to delegate to such committee all or any of their powers and authorities, and all the acts of such committee (within the scope of their authority) shall be considered to be the acts of the President, Vice-Presidents, Treasurer, and Governors, and such committee may be appointed for any definite or indefinite time, but in either case it shall be lawful for the President, Vice-Presidents, Treasurer, and Governors at any time to revoke the appointment of such committee, and also to make (if they shall think fit) any new appointment.

AND WE DO by these presents will, order, and direct that the said college shall have power to surrender its present or any future Charter or Charters,

or any part or parts thereof, or to accept any new Charter or Charters in manner hereinafter described, after which such surrender or acceptance shall be binding upon members of the Corporation and all others concerned.

THE SURRENDER of the Charter or Charters, or any part or parts thereof, or the acceptance of any new Charter or Charters, shall be made upon petition of the Corporation by resolution passed at a meeting thereof in Dublin, duly summoned with at least fourteen days' notice of the time and place of meeting, and of the resolution proposed, such resolution to be carried by a two-thirds majority of those present and entitled to vote, and confirmed at a subsequent duly summoned meeting after an interval of not less than seven days, by a two-thirds majority of those then present and entitled to vote.

PROVIDED ALWAYS that these Our Letters Patent be enrolled in the Rolls of the Record and Writ Office of the Chancery Division of Our High Court of Justice in Ireland within the space of six calendar months next ensuing the date of these presents.

IN WITNESS whereof, we have caused these Our Letters to be made Patent. WITNESS, Robert Offley Ashburton, Baron Houghton, Our Lieutenant-General and General Governor of Ireland at Dublin, the twenty-seventh day of May in the fifty-eighth year of Our Reign.

J. NUGENT LENTAIGNE, Clerk of the Crown and Hanaper, and Permanent Secretary to the Lord Chancellor of Ireland.

Enrolled in the Consolidated Record and Writ Office of Her Majesty's High Court of Justice in Ireland (Chancery Division), on the Twenty-ninth day of May, 1895.

WILLIAM SULLIVAN, C.R.W.

---

## THE OX-BOT OR WARBLE-FLY (*Hypoderma bovis*): DOES IT EVER ATTACK THE HORSE?

BY A. STEWART MCDOUGALL, M.A., B.SC.

THE interesting account of the observations of Mr. William Sim on the Horse-Bot in the December issue of the VETERINARY JOURNAL has recalled to my mind the doubt as to the identity of the fly known as the Horse-Warble. With reference to Horse-Warble attack, it is agreed that the attacking fly belongs to the genus "Hypoderma," but the species has not been determined with certainty. Hypoderma Loiseti and Hypoderma equi have both been suggested, and in a letter to me in March last Miss Ormerod hints that induced by appearances described in an account of Horse-Warble in her current Annual Report, she feels inclined to add Hypoderma bovis, the Ox-Warble fly, to the list of uncertainties. Since receiving Miss Ormerod's letter I have made inquiries of a good many gentlemen likely to have had opportunities of noticing Horse-Warble attack, but while more than one had observed the infestation, none had followed out the round of life with any accuracy. This failure to make detailed notes or drawings of the various stages in the life-history of the fly resulted from the feeling that all must already be well known, and thus specimens which, if preserved, would have been the means of determining the species, have failed to be preserved or have been deliberately destroyed. There must be many readers of the VETERINARY JOURNAL who are well situated for observations of Horse-Warble attack, and in the hope that such observations may lead to the clearing up of the identity of the attacking species, I take the liberty, with Miss Ormerod's permission, to give a *resumé* of her letter. The attack is fairly well known in such Continental countries as are washed by the North Sea, while Miss Ormerod has had notes of it from some two dozen places in England mostly near the sea. The maggot was found at various dates from the middle of April to the end of July. The number of warbles on one horse generally one or two.

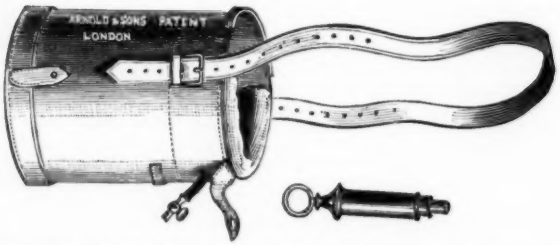
The warbles are found on neck, flank, quarter, and back. Miss Ormerod goes on to say that what is most needed for identification of the species is firstly to secure a few specimens of the full grown maggot, "no description of the full grown maggot having yet been published and none at all of the fly." "The difficulty is to get the full grown maggot at the stage when it is just quitting the warble, in order to change to chrysalis under a clod or some shelter, for if it is squeezed out it may be injured or the time not come when it is ripe for change." As to how to secure the full grown maggot without injury Miss Ormerod writes, "The best plan is to make a little bag and fasten it by anything sufficiently tenacious on the coat of the animal, over the warble hole, so that when the maggot comes out it will fall into the little pouch and be secured. Just a little circular bit of muslin, with a stout thread run along the outer edge and then drawn up so as to give it a bag form, answers well." Should any observer be successful in rearing the maggots to the pupation stage, for further development warmth seems favourable. "One chrysalis which was kept in a temperature of 100° Fahren. developed the fly in 27 days" (unfortunately the fly was not preserved). Miss Ormerod's magnificent services in connection with true Ox-Warble attack are well known and doubtless many will feel anxious to help her as far as they can in settling the Horse Warble difficulty. Any specimens sent or accurate observations recorded will be duly acknowledged and full credit given.

---

## NEW INVENTIONS.

### New and Improved Form of Chloroform Muzzle.

*Patented.*




The above illustration shows a new form of Chloroform Muzzle recently made by Messrs. Arnold and Sons, at the suggestion of a member of the profession, who sends the following description:—

Having cast and secured the horse, remove the cap and put the muzzle on the upper jaw, the edge opposite the rubber tube and stop cock, being in the horse's mouth. Fit the head strap behind the ears, and then proceed to blow up the pneumatic pad with the brass pump until the upper edge of the muzzle fits the horse's face; being careful not to make it fit so close as to compress and occlude the nasal chambers.

Now attach the cap to the lower button on the muzzle, place the chloroformed sponge on the wire grating, and close the cap, leaving the sliding ventilator open. Should the horse struggle a great deal, undo the top button and let air in under the cap. After the horse is once under the influence of

the chloroform, the cap and ventilator should be closed, as he will get plenty of air through the mouth, the soft palate having become paralyzed.

The tongue should always be held by the assistant, as it is apt to become lacerated by the teeth when the horse is coming round, and it always acts as a good index of the stage of anæsthesia that the animal is in.

---

# Legal News.

## VETERINARY SURGEONS CHARGED WITH CRUELTY.

BEFORE Mr. Stipendiary Atkinson, at the Leeds Town Hall, on Thursday, November 7th, a charge of cruelty to a horse was preferred against James Brand and Henry Getling Bowes, who carry on practice as veterinary surgeons in Leeds. Mr. Stansfield (barrister) appeared to prosecute on behalf of the Royal Society for the Prevention of Cruelty to Animals, and Mr. H. A. Child was for the defence.

In his opening statement, Mr. Stansfield explained that the charge against the defendants was one of having caused to be ill-treated a bay gelding which, suffering from mange, had been sent to them for treatment. The animal remained in the care of the defendants at their premises in Hunslet from September 21 to September 28, and on the morning of the latter date was so weak that he had to be raised by means of a sling attached to two coal carts. At six o'clock in the same evening, however, the defendants directed their stableman, named Rhodes, to take the animal to Thorpe Hall, a distance of 4½ miles, but on reaching Thwaite Gate, half a mile away, the horse dropped down in the road. Rhodes endeavoured to move him, but he only stumbled and pitched forward headfirst. Rhodes then tried to raise the horse by means of a plank, but was stopped by two policemen, and Inspector Jowett, of the Royal Society for the Prevention of Cruelty to Animals, was sent for. He found the animal in the last stage of exhaustion, and it being impossible to raise him he was subsequently, by Mr. Brand's orders, pole-axed in the roadway.

Charles Marshall Rhodes, the stableman, said that when he visited the horse at 7.30 a.m. on the 28th, he found him lying with his legs entangled with the post supporting the manger. He sent for Mr. Bowes, and whilst he was fetching some straw, the horse was moved from the stable into the middle of the yard. There he was raised by means of a sling, and witness walked him about for 20 minutes or so. Later in the forenoon he exercised the horse in the streets.

Police-constable Gale, who, with Police-constable Hall, came on the scene shortly after the horse had stumbled, described the efforts of Rhodes to raise the animal. The man eventually got a plank, with the object of getting the horse up, but witness and the other constable stopped him. The horse, added witness, seemed very weak. Police-constable Hall gave similar evidence.

Inspector Jowett said that when he reached the place where the animal was lying he immediately examined the animal. He was lying on the near side, with his shoulders in the gutter and his head on the kerbstone. He was then in the last stage of exhaustion, and was perfectly motionless. The body, legs, head, and neck were all covered with mange scabs. After the defendants arrived a float was secured, but witness pointed out that it would be impossible to get the horse into it alive without putting ropes round him and hauling, and said he should not allow this to be done. Mr. Brand said: "I'm in charge here, and shall give what instructions I like," and witness replied, "Excuse me, *I'm* in charge here as a police officer, and I

shall not allow the horse to be hauled by ropes." Some men then attempted to lift the horse into the float, but this was found to be impossible. The head was got on to the tailboard of the cart, and whilst in that position the animal's lip dropped. Mr. Brand, on seeing this, shut the lip up again, and ordered that the float should be taken away and the horse killed.

Mr. F. SOMERS, M.R.C.V.S., Wade Lane, Leeds, said he was called to Thwaite Gate to see the horse about nine o'clock. The gelding was then much distressed and exhausted, and was covered with mange. His condition was poor, and there was a wound on the right hip, and another over the right eye. The pulse was weak. He was present at the *post-mortem* the next day, which revealed that the horse had suffered from disease of the heart.

Have you any reason to give us why the animal would be unable to get up?—He would be unable to do so from exhaustion, accompanied by the disease of the heart.

Having regard to the fact that the horse had to be raised by mechanical means in the morning, would he, in your judgment, be fit to travel 4½ miles in the evening?—Certainly not; and I should have anticipated the probability of his coming down.

Cross-examined: The fact that the horse ate food eagerly that day did not necessarily prove that he was healthy.

Was it a proper way to get two carts and improvise a sling to raise a horse in the yard?—I don't say it was improper, but I should not have done it.

What would you have done?—Well, seeing the condition of the horse, I should have fetched a pole-axe and killed him, and without thinking twice about it.

Further cross-examined, witness said that, assuming Rhodes's evidence to be strictly accurate, and if the horse had been able to walk on one occasion during the day for twenty minutes, there would be no reason why the animal should not have walked in the evening.

Mr. WILLIAM PRITCHARD, late Professor of the Royal College of Veterinary Surgeons, said he had listened to the previous evidence, and under the circumstances he was of opinion that it was an act of cruelty to call upon this horse to walk four miles on the date in question.

Cross-examined, he insisted that if the horse had been down in the morning, and had had to be raised mechanically, it was not proper to expect him to walk four miles the same day.

Mr. ROALFE COX, Fellow of the Royal College of Veterinary Surgeons, bore out the statement of Mr. Pritchard to some extent, but would not commit himself to the statement that it would have been cruelty to send the horse a distance of 4½ miles. He said it would been simply an "error of judgment," and even went so far as to add that the horse might have accomplished the journey without pain.

This concluded the case for the prosecution, and the STIPENDIARY, without calling upon the defence, intimated that he was not satisfied, after hearing Mr. Cox, that the charge of cruelty had been made out. The case against Brand, which had been dealt with, was accordingly dismissed, and that against Bowes was then withdrawn by Mr. Stansfield.

Mr. CHILD applied for costs, describing the prosecution as a perfectly groundless one, and dwelling upon the injury it was calculated to inflict upon his clients professionally.

The STIPENDIARY refused the application, but remarked that if the action had been a civil one he would have granted costs, and also assured Mr. Child that as the result of the proceedings no reflection whatever rested upon the defendants.—*Yorkshire Evening Post.*

# Army Veterinary Department.

Vety.-Lieut.-Col. C. Clayton arrived from India 6th ult., and is appointed District Veterinary Officer for Ireland.

Vety.-Captain E. H. Kelly has been restored to full pay, *vice* Vety.-Captain H. Wilkinson, deceased.

Vety.-Captain J. Finlayson joined at Woolwich for duty on 12th inst., from leave of absence.

Vety.-Captain T. Joslen, embarked for a tour of service in India on 13th ult.

Veterinary-Major G. J. R. Rayment and Veterinary-Captain E. Taylor are on return from the Chitral Relief Force posted to Rawal Pindi for duty.

Veterinary-Captain J. Cooper has been moved from Rawal Pindi to Lucknow for duty.

Veterinary-Lieutnant H. L. Sawyer is posted to Peshawur for duty on return from the Chitral Relief Force.

---

Veterinary-Major J. C. Berne arrived from South Africa on 21st ult.

Veterinary-Lieutenant T. E. W. Lewis arrived from India on 21st ult.

These officers have been granted one month's leave of absence, and will be posted to Woolwich for duty on termination of above leave.

---

Veterinary-Captain J. Finlayson has been transferred from Woolwich to Dundalk, for duty with the 13th Hussars, vice Veterinary-Captain J. A. Braddell, who will shortly embark for India.

---

# Extracts from Foreign Journals.

## CHLORIDE OF BARIUM IN CASES OF COLIC.

THE following are selected from a list of 51 cases treated at the Veterinary College, Berlin, by Dr. Dieckerhoff and his assistants in July and August of this year :—(*a*) A fourteen-year-old cart-mare of middling size had been suffering for some hours with colic and was sent to the college for treatment ; showed great suffering, rolled about and groaned. No indications of peristalsis, abdomen slightly inflated, maxillary pulse 58. Treatment : intravenous injection of chloride of barium 1 gramme (?) in 10 grammes of distilled water. This began to take effect in five minutes, mare raised her tail, strained at the rectum and voided dry balls of fæces ; slight increase of colic symptoms ; 10 minutes later wind is passed and a quantity of soft and pulpy fæces ; in two hours patient is quit of all her trouble. (*b*) A seven-year-old van-horse had been suffering for several hours from colic and had been treated by a surgeon with 1 gramme eserin. sulph. but without relief. Abdomen inflated like a barrel ; percussion of abdominal walls produced abnormally loud sound, auscultation revealed ringing noises, breathing difficult, pulse 65. Veins of the neck stood out distinctly, mucous membranes very red. Patient moved with difficulty and indicated severe trouble by his staring look and his groaning. Treatment : Chloride barium intravenously, 5 gramme in 5 grammes distilled water. Immediately after injection the animal raised her tail and in a few minutes great quantities of intestinal gases were expelled ; this went on, with short intervals, for more than 30 minutes, and defecation took place in 35 minutes ; the flanks resumed their normal condition, and in one hour the animal was restored to his ordinary state of health, and was sent home cured four hours later. (*c*) A heavy cart-mare was brought in, suffering from colic which had suddenly set in after an extra large feed of maize and beans.

Patient was wild with pain and rolled about on the tan-covered floor of the operating-hall, groaning loudly and screaming and paying no attention to voice or even whip. She dashed her head and limbs recklessly against the walls of the place. A careful examination of this maddened animal was of course impossible, but it was determined to give an injection of 1.25 gr. chlor. bar. in 10 gr. of distilled water intravenously; as the animal was never still for a moment, this was very difficult, but at last the efforts were successful. The result was most striking; in six minutes defecation began, and it was repeated at short intervals, and the mare became quieter. It was now possible to examine the abdomen, and this showed that peristalsis was going on vigorously. The patient left next morning quite well. (*a*) A nine-year old heavy cart-mare had been suffering for 11 hours from colic, and was brought to our College. Pulse 40, breathing 16. Intravenous injection of chlor. bar. 1.25 gr. in 10 gr. dist. water. Immediately after injection, the animal shook her head violently, and moved her jaws as if chewing. In five minutes hard fæces were discharged; then the mare laid down, rolled about once or twice, and then remained lying flat on the ground. Sometimes she looked round at her belly, drew in her legs towards her body, and lashed her flanks with her tail. Auscultation showed that only intermittent intestinal sounds were present. No improvement takes place within six hours (pulse 44, breathing 18), and a second intravenous injection was given to the mare as she laid (·75 gr. in 10 gr. dist. water). Shortly after the injection the animal rose, walked about the stall, and then, with great straining at the rectum, discharged large quantities of pulpy fæces. Peristalsis audible on both sides. Three hours later the mare was discharged cured. (*e*) A bay gelding, 12 years old carriage horse, which had been suffering from colic for seven hours, received at 2 p.m. an intravenous injection of ·75 gr. of chlor. bar. in 10 gr. of dist. water. In two minutes defecation commenced, accompanied with discharge of gases. Patient laid flat on the ground, and remained there quietly. Peristalsis very vigorous, and distinctly audible at five paces from the animal. In 1¾ hours the patient rose, discharged a great quantity of pulpy fæces, and began to eat his fodder. He was discharged same afternoon cured. (*f*) A 15-year-old light cart gelding was brought to the College with the report that he had been suffering for two days from colic, and had been treated for that trouble. The patient, a poorly-fed animal, lay on the ground, and indicated by frequently striking his belly, and by turning his head round to gaze at it, and by constant groaning, the severe pain which he was suffering. There was no peristalsis, abdomen greatly distended, maxillary pulse 86 and thready, breathing 30, temperature 105° Fahr., conjunctiva dark red. A subcutaneous injection of ·1 gramme Eserinum sulph. was administered, but no apparent effect was produced. Patient's strength was declining; he could not now get up and his eyes were staring. An hour later an intravenous injection of ·5 gr. chlor. bar. in 5 gr. dist. water was given. Colic symptoms increased, but patient voided small quantities of bright green, watery fæces; there was straining at the rectum, anus remained open; a little later there was an outbreak of sweat and a trembling of the muscles. Death took place in the evening. *Post-mortem* showed *volvulus jejuni*, rupture of the jejunum, and peritonitis. (*g*.) A ten year old light-van mare was brought to the College, suffering from severe colic, produced by a journey of 28 miles at a rapid pace. Auscultation of abdomen revealed ringing sounds in great and small intestine. Pulse 80, scarcely perceptible. Treatment: 5 gr. chlor. bar. in 5 gr. water intravenously. In 12 minutes normal intestinal sounds are heard, which gradually become general, and, in half-an-hour are audible 3 paces from the mare. She grew quieter by degrees, and one hour later discharged pulpy fæcal masses. Next morning she showed no signs of disturbance beyond the swelling of her

limbs caused by over-driving. (*h.*) A Belgian gelding, 12—14 years old, had been ill with colic for nine hours, and had been treated for that ailment. An intravenous injection of 1·25 gr. bar. in 10 gr. water was given, and took effect in one minute. In five minutes after there was a discharge of dry fæces, followed in 20 minutes by pulpy excreta. Peristalsis audible on both sides. Patient strained sometimes at rectum, but in the intervals, when he was free from pain, ate green fodder with appetite and drank water. Next morning he was quite well.

The hospital surgeon who reports these cases summarises thus:—In addition to the 51 cases of colic treated with chlor. bar. there were seven treated, purely on account of external circumstances, with eserinum sulph. Of these latter cases six turned out successfully, whilst one horse died of incurable involution of the small intestine. Of the 51 cases treated (within a month) with chlor. bar. 45 were quite successful; in the remaining six cases the colic was complicated with incurable conditions of the gastro-intestinal tract, such as rupture and involution, but these conditions preceded the administration of the barium; the result of all our observations is distinctly that barium, whether given internally or intravenously, in no way tends to the production of ruptures, either of the stomach or intestines. It is of the utmost importance that the surgeon should regulate his dose of barium exactly in accordance with the whole case, more particularly with regard to the weight and age of the horse; further, he must take note of the heart and observe if there is any weakness there. At the same time the surgeon must not hesitate to give a large enough dose to insure a satisfactory effect.

## ERYSIPELAS IN THE HORSE.

Professor Semmer, of St. Petersburg, writes to the *Berliner Thierärzt. Wochensch.*, as follows:—Last February when the cold was so intense (the temperature ranging from 10 degs. above to 17 degs. below zero in Fahr.), a consignment of trotting horses arrived in St. Petersburg from a breeding establishment on the Volga. The animals had travelled some 625 miles (English), mostly by rail. Immediately after arrival three of the male animals turned ill with swelling of the lips, cheeks, and neck, and all three died. A quantity of the clear, serous exudation, taken from the swelling was used for inoculating a rabbit, a guinea-pig, a cat, and two mice, but produced no effect. The *post-mortem* examination of the horses showed as follows:—In the abdomen, thorax, and pericardium, a dirty red fluid, head and neck swollen by an accumulation of sero-fibrinous, partly fluid, partly congealed exudation in and under the skin, which in some parts formed a layer an inch and a-half thick; pleura, pericardium, and peritoneum, showed reddish spots and streaky injections, and were partly covered with dots of blood; considerable extravasation of blood in the mesentery and all round its glands, also under the pleura; lungs and intestines normal, liver and kidneys yellowish, on the point of fatty degeneration; spleen greatly enlarged and full of blood; in the skin-exudation a few staphylococci, in the serous outflow from thorax and abdomen, a number of streptococci and short bacilli. Inoculation of the exudation in a horse had a negative result, and so had the inoculation of cultivations grown on gelatine. On the other hand inoculation of the staphylococci (cultivations on potatoes) produced erysipelatic swellings in a horse, and death in a guinea-pig. Evidently the horses had on the road to St. Petersburg, and whilst suffering under the influence of cold, infected themselves on the lips with virus, and the inflammation had spread to the serous membranes and so caused death.

## A NEW INSECT-PLAGUE.

Newspapers have recently reported from Africa a new plague in the shape of

an insect which, they say, threatens havoc to domestic animals there, and is almost as bad as the tsetse-fly. This is the *sarcopsylla penetrans*, or sand-flea. This troublesome parasite, which is said to have become known to the Spaniards so long ago as the sixteenth century, when they took possession of Central America, and to have given them a great deal of trouble, was conveyed by traders from its American home to Africa, and in the first instance to the Portuguese possessions there in Central Africa. Apparently it has gone on spreading, and now it is on its way through the Congo State to German Africa. Undoubtedly the sand-flea is a very troublesome insect, but more so for men than for beasts; at any rate, it is not to be compared with the tsetse-fly. Wissmann, in his book on parasites, speaking of the sand-flea, says that it is conveyed from place to place only by traders; further, that the negroes have a great dread of it. It penetrates into the skin, causes very painful and finally purulent swellings, and it may bring about the loss of the toes, one by one, but it is quite harmless if, when the swelling begins to show itself, the insect is removed therefrom with a needle. Its worst efforts are not, like the sting of the tsetse-fly, fatal; it produces only local morbid processes, and for animals it has no serious importance.

## REMOVAL OF AMMONIACAL SMELLS FROM STABLES.

THE German magazine *Das Pferd* (The Horse) recommends for this purpose the use of shavings that have been soaked in vitriol and (40 per cent. of) water. The shavings to be scattered about the stable. The vitriol combines with the ammonia to form sulphate of ammonium. Chloride of calcium has the same effect, but the chlorine thus produced has a still unpleasanter smell.

## THE FAUNA OF CARCASES.

THE French surgeon Mégnin, in a monograph recently published by him, states that insects which infest a carcase do so in a prescribed order, so that from the presence of certain insects one can tell the time that has elapsed since death. On a carcase lying exposed to the air one finds first the flies which remain till the formation of sebacic acids. A second series of insects arrive as soon as the corpse-smell is established. A third, three to six months after death, on the development of the sebacic acids. Altogether, we find eight distinct relays of insects before destruction is complete, and after the last have gone there is nothing but the bones left.

## SWEAT IN INFECTIOUS DISEASES.

PROFESSOR QUEIROLO, of Pisa, has been making experiments by injecting the sweat of human beings into rabbits. The sweat of healthy men had no effect on them, but, on the other hand, the sweat of men suffering from small-pox, typhoid fever, or malaria, even when injected in smaller doses, caused death in all the rabbits within twelve to forty-eight hours. Dr. Queirolo proves that death was due not to infection, but to intoxication (that is, to certain poison elements which had been contained in the sweat), by the fact that he instituted further experiments with sterilised sweat, and that this sterilised sweat, when it came from healthy men, was harmless, but deadly when it came from sick men. A further result of these interesting experiments was that the toxicant power of equal quantities of sweat stands in direct relation to the malignity of the disease; rabbits infected with sweat from patients suffering from severe malaria died, whilst those infected with sweat from patients only slightly affected with the same disease, escaped with their lives.

## WHAT AN OX CAN STAND.

VETERINARY SURGEON SCHULTZ writes to the *Wochensch. für Thierheilk.* as follows:—I was called out at 10.30 one night to attend a heavy ox which was

suffering from severe colic and watery diarrhœa. It appeared that a few days before the weather being very rainy, the animal had given signs of something being wrong with its digestive organs. Its ignorant owner had thereupon in the course of two days, administered eight pounds of sulphate of magnesia (epsom salts) and ten pints of camomile tea! The animal was suffering from salts-poisoning. Ordered linseed-meal, mucilage, and proper diet, and next day the animal was quite well.

## RUPTURE OF THE DIAPHRAGM IN A HORSE.

WE translate the following from a Spanish Journal, *La Revista de la Facultad de Agronomia y Veterinaria*, published at La Plata, in the Argentine Republic:—On the 23rd August of this year a horse was brought to us suffering severe colic pains. As soon as he arrived he lay down in a heap on the ground, dashed his head against the wall, rolled from side to side, and then, after this wild action, lay still for a time with his four feet in the air. His pulse was weak, almost imperceptible; respiration very fast, flanks distended, profuse sweat. We made examination *per rectum*, to discover the condition of the bladder and the posterior parts of the intestine, but found nothing abnormal in these regions. We made also an examination of the inguinal canal; there was no strangulation of the intestine in this region. It was necessary to adopt prompt and energetic treatment, as there certainly existed an organic lesion of a serious kind in the belly of the animal. We gave him therefore two hypodermic injections of sulphate of eserine (5 centigrammes=$\frac{3}{4}$ grain), with an interval of one hour. Croton oil was administered internally in doses of 1 gramme (15$\frac{1}{2}$ grains) three times with intervals of an hour. We applied double Belgian fire on the belly and did not spare clysters of soap and water, but we could not save the animal. The *post-mortem* showed that our efforts had been useless, as we found a rupture of the diaphragm of considerable extent and acute peritonitis following thereupon.

## THE SPAYING OF MARES.

WRITING to *La Revista Veterinaria*, of La Plata, Dr. Julio Lejeune says:—"This operation has been frequently performed with success in cases of nymphomania. The best plan is to operate on the mare whilst standing, care being taken to secure the hind legs with hobbles. A twitch is applied to the upper lip to keep the animal quiet. The operation consists of four parts:—(*a*) incision of the vaginal wall, (*b*) seizing of the ovaries, (*c*) removal of the ovaries, (*d*) suture of the vaginal wound.

(*a*) The mare being in a fasting condition, we make a longitudinal incision in the middle of the upper wall of the vagina, at the distance of 5 centimetres (=2 inches) from the cervix. This incision is the ticklish part of the operation, as, when making it, the operator runs the risk of cutting either the posterior aorta or the vena cava, or its principal divisions, especially if the mare makes frequent expulsive efforts. In order to avoid this—which always means the death of the animal—we have invented an instrument sufficiently sharp to sever the coats of the vagina, but not to injure the above-mentioned blood-vessels. Practice has shown that this instrument fulfils all the requisite conditions. We divide the mucous and muscular coats of the vagina with this instrument; the peritoneum we perforate with our forefinger by a sharp jerk; the solution of continuity is extended by one hand. It will be seen that by operating in this way it is not necessary to lower the uterus, which is such a trouble to the operator. (*b*) The ovaries are very easily found, suspended from the anterior extremity of the broad ligaments. (*c*) The removal is effected by means of a Chassagnac *écraseur* and does not present the slightest difficulty. (*d*) We are of opinion that a stitch in the centre of the wound is bound to be of great use in prevent-

ing the development of serious peritonitis ; we take a curved needle with a disinfected thread and push it from the outside inwardly through the right lip of the vaginal cavity, we then pass it in the inverse direction through the opposite lip, and then withdraw it ; then with the two ends of the thread brought outside we form a simple knot ; an assistant takes one end of the thread, the operator the other, and the two are fastened firmly together, the ends are cut off, and the operation is at an end. We give a sketch of the instrument used, showing its form and dimensions.

## CARDITIS AND PERICARDITIS IN THE HORSE.

Veterinary Surgeon Engel contributes the following to the *Deutsche Thier. Wochensch.* :—A ten-year-old gelding had received a blow on the left side of the breast, the *anconæus longus* being specially affected. The swelling consequent thereon subsided in 14 days, the horse became quite lively and was set to work again on the 1st of August. On the 9th, however, it suddenly collapsed and died. The organs of the thorax were very pale. The pleural sinuses contained 12 litres ( = 2½ gallons) of partly coagulated, partly fluid blood. The fifth and sixth ribs were broken, and the fractured end of the fifth pointed to the free space of the thorax ; upwards from this fractured end was found a roundish opening in the pericardium. The edges of the opening were thickened, and the whole pericardium had the thickness of 1 centimetre ( = ·39 inch); it was filled to overflowing with dark-red coagulated blood. Opposite this opening the epicardium was dull and thickened, and in the inside of this there was found a cavity, of the size of a pea, leading to the heart-muscle close to the coronal vessels of the heart. Apparently the fractured rib had, on the day of the accident, made a wound in the pericardium but had probably become, so to speak, soldered to the place. This "soldering" had become loosened when the horse re-commenced his work.

# Correspondence.

## TUBERCULOSIS IN CATTLE.

*To the Editor of* "The Times."

Sir,—The question of tuberculosis in cattle and the danger, which is admitted by the leading authorities to exist, of the disease being communicated from them to human beings as phthisis or consumption, is certainly one most pregnant with interest to every section of the community. An additional interest in the matter was created at the recent meeting of the Scottish Chamber of Agriculture in Edinburgh, held for the special purpose of discussing with the new President of the Board of Agriculture (the Right Hon. Walter Long) urgent public questions calling for legislative consideration. Principal Williams, of the New Veterinary College, Edinburgh, proposed that "tuberculosis be included in the statutory schedule of infectious diseases, and that compensation be paid to the owners of cattle affected with tuberculosis, when such cattle are slaughtered in the public interest," or, as Mr. Long put it, "the Board of Agriculture was asked to include the disease in the schedule under the Contagious Diseases (Animals) Act."

A brief statement of the opinion of the scientific world, with regard to the disease, served as a preface to by far the most important matter touched in the day's proceedings—viz., a thoroughly practical means of stamping out the disease at a relatively moderate cost to the country. As it stands, it is the only feasible proposal in this direction which has been made. Principal Williams explained that Koch's discovery of tuberculin had rendered the detection of the disease by inoculation a certain and an easy matter, while

Professor Bang, of Copenhagen, had conducted during a number of years a series of experiments on an extensive scale which went to show that calves dropped by tuberculous cows could be reared in a perfect health on milk from tuberculous cows, provided the milk be boiled and the animals be kept away from danger of contamination such as would occur if they were permitted to run with those suffering from tuberculosis. The fact, stated from his own wide and varied experience, that tuberculosis is infinitely more prevalent among cattle than it was twenty years ago, makes the question from the sanitary point of view, in the interests of public health, one of increasing magnitude. The nature of the disease amply justifies the belief that it will go on increasing at an accelerated pace on account of the increased danger of contamination from an increased number of diseased animals. Although it is, to some extent, an agricultural or producers' question, it is to a far greater and far more significant degree a question affecting the general public—the consumers. The agriculturist may suffer from the pecuniary point of view to a limited extent, but of infinitely greater moment is the question of health—the question whether an ever-increasing risk is to be run of contracting through the consumption of milk and meat a most insidious and incurable disease. If public sentiment were roused to a full appreciation of the actual facts of the case, the remedy, at whatever cost, would not be long delayed in its application.

It is not our object to urge the adoption of hasty and extravagant means when simple, inexpensive, and equally suitable means are possible. The proposal made was (1) to compulsorily inoculate all suspected herds with tuberculin twice annually; to separate those which gave the reaction and keep them entirely apart from healthy stock, and at the same time to destroy all unthrifty diseased animals; (2) the flesh of all cattle which appeared healthy, although known to be derived from an animal which responded to the tuberculin test, to be sold as human food, if on examination by a competent veterinary expert it were found to be in a condition which would enable it to pass the sanitary market-inspector at the present time. This may possibly shock some people who are particularly sensitive, but it is not proposed to offer for sale the carcass of any animal which would not by present regulations go into consumption. Moreover, with a knowledge of the existence of tuberculosis in the carcass a more thorough inspection could be enforced which would lead to the rejection of all those generally diseased. Tuberculosis is seldom found in the flesh, and where there is only slight affection, as in the early stages of the disease, the danger to human life is reduced to a *minimum.*

All the compensation which the Government would be called upon to pay would be—(1) the value of condemned cattle, and (2) the difference between the original value and the forced sale value of all going into consumption that were slaughtered in the public interest. Mr. Long advanced two objections to this scheme—viz., the large sum of money that would be required for compensation and the difficulty of carrying it out in the case of small holdings where accommodation for isolating the diseased animals did not exist. Both were practical objections, and both worthy to be raised by a responsible Minister; but, in such a case as this, amounts of expenditure must be regarded in the light of the proportion they bear to the amounts required to carry out alternative schemes, and the means to be tried must be considered along with the results to be achieved.

The position is simple enough. With a great social problem before us—probably the most important and far reaching in the interests of public health which has come up since Jenner solved that of vaccination for smallpox—are we to ask how many human lives—our own probably among the number—we are knowingly year by year to sacrifice so that the British taxpayer may be

relieved of the expenditure of a few hundreds of thousands of pounds, or that the smaller class of cowkeepers shall be saved from a slight temporary inconvenience?

The question is not one that can be shelved; it must be grappled with, and that before long. Therefore, to reject this scheme is tantamount to giving preference to some other.

The only other scheme which appears at all possible is to give compensation for the slaughter of all animals found to yield to tuberculin inoculation and prevent all such meat being used for food. This would necessitate the expenditure of at least four or five times the proposed sum for compensation involved in Principal Williams's scheme, unless it be determined that the distressed agriculturist, in the interests of the health of the community, should be well nigh ruined by receiving only partial compensation for his loss.

Edinburgh University. ROBERT WALLACE.

---

## *RE* PROSECUTION OF BRAND AND BOWES FOR CRUELTY.

*To the Editor of the* VETERINARY JOURNAL.

SIR,—I should like, with your kind permission, to make a few remarks on the above case, in which Mr. Brand and myself were the defendants.

I do this because the case, having been dismissed without calling on the defence, it is possible there may be some misunderstanding about it, which we had not the chance of clearing up at court.

I should like to state at the outset that I have no hesitation whatever in saying that the whole prosecution was based on a gross misrepresentation of facts, and I will endeavour to prove this by giving you, as briefly as possible, the evidence of our witnesses, in contradiction to that of the witnesses for the prosecution.

In the first place, the prosecution stated that the horse had only travelled half-a-mile when it fell, but, on being cross-examined, their witnesses allowed that it might be even as much as a mile and a quarter. My own opinion is that it was quite a mile and a half. The importance of this point will be seen when I mention that it took the horse only twenty or twenty-five minutes to go that distance, for there certainly would have been something wrong with the horse if it could only go half-a-mile in twenty-five minutes. That is one instance of their misrepresentation of facts

Then Inspector Jowett and Mr. F. Somers both tried to throw the responsibility of destroying the horse on to Mr. Brand. This Mr. Brand denies, and although I was not myself present at the time, and therefore cannot say anything personally one way or the other, we had four witnesses who were present at the time who heard Inspector Jowett say, when Mr. Brand was going to get the horse on to the float, that he was in charge of it and would not allow it to be pulled on to the float, and also heard Mr. Somers say the horse would have to be destroyed. I, myself, can vouch for the fact that after it was killed Inspector Jowett rode on the knacker's cart to their yard and left orders that the horse was not to be touched by anyone until he and Mr. Somers came to make a *post-mortem* the next morning. The next morning Mr. Bowman, Mr. Brand, and myself had to wait three-quarters of an hour for Inspector Jowett and Mr. Somers, as the knacker would not let us touch the horse until they came; so that looked as though we had not much say in the matter.

As to Mr. Somers' evidence he was very emphatic in asserting that this was a case of cruelty, but on being cross-examined he allowed that if the man Rhodes' statement, as to the horse having been walked about several times in the day were true, then there was no cruelty; at the same time he maintained that from his professional knowledge he knew the horse was not in a

fit state to walk 4½ miles after being cast in his stall in the morning. This I take it means in plain language, that he did not believe Rhodes' statement. I can only that I am very sorry to see that any Veterinary Surgeon, for the sake of a paltry court fee, would go so far out of his way to secure a conviction against other Veterinary Surgeons, for, seeing that the prosecution was based principally on Rhodes' statement and that his evidence was absolutely all they had as to what took place prior to the horse slipping on the street, I consider that Mr. Somers had a good cheek to try to lead the magistrate to believe that part of that statement was not true. As a matter of fact we had three witnesses besides ourselves to prove that, after the horse had been raised in the morning, he walked away with very little stiffness, and was walked about several times during the day for quarter-of-an-hour at a time and they also saw him leave the yard at night walking quite well.

Rhodes stated that the cause of the horse falling was that he was cannoned by another horse in the street, and the horse making a plunge forward slipped on an iron grating and fell, and Rhodes was prevented from getting him up by the two detectives who came on the scene and would not let him assist him to rise.

Another point in Mr. Somers' evidence was that the horse could not rise on account of exhaustion and heart disease, and yet on cross-examination he allowed that the disease of the heart was so little that it would not likely have been discovered during life. I might here mention that the horse was examined, *post-mortem*, on our behalf, by Messrs. Bowman & Lane, of Leeds, Mr. Carter, Senr., Mr. Bradford, and Mr. Scriven, Tadcaster, all of whom were of opinion that the horse was in very fair condition and perfectly healthy with the exception of a slightly enlarged heart, such as would be found in hundreds of horses working daily on the streets of our large towns.

Mr. Somers also stated, in cross-examination, that he would have pole-axed it in the morning on finding it cast in its stall, and not thought twice about it; now I put it to anyone, "What would our clients think of us if we pole-axed every horse that got cast in his stall, even if he had the mange in addition?" I should like to suggest to Mr. Somers that if Sir Visto could get up and win the St. Leger after being cast in his box, surely this horse might be asked to walk 4½ miles under similar circumstances. And then as to the horse not being able to rise after being liberated in the morning; why! the stiffness after lying in a cramped position for several hours would be quite sufficient to account for that, especially in a narrow stall.

As to the evidence of Mr. Pritchard, I can only describe the action of a veterinary surgeon who will come down to give evidence against other veterinary surgeons on a criminal charge, without knowing anything whatever about the case, and persist in calling it an act of cruelty in the face of all evidence, as contemptible, and I can only say that I think a more flagrant breach of professional etiquette it would be difficult to find. As to Mr. Cox, I have a certain feeling of respect for him, as he was too conscientious to persist in calling it cruelty, but allowed that if Rhodes' statement were true, there was no cruelty whatever, and it was, in fact, in a great measure due to his evidence that the case fell through. In conclusion, I can only express my indignation that such cases should ever be taken up by a society which is instituted for such a good cause as the prevention of cruelty to animals, and also that when they are taken up, members of our profession should knowingly give evidence against brother practitioners in such trumpery cases.

On behalf of Mr. Brand and myself, I should like also to thank those members of our profession who so willingly came to our assistance, though, happily, their evidence was not needed to clear us of this charge.

Apologising for intruding so much on your valuable space, I remain, yours truly,

H. G. BOWES,
*Pro* BRAND & BOWES.

## THE JUBILEE MEMORIAL.

*To the Editor of the* VETERINARY JOURNAL

Dear Sir,—In begging the favour of the insertion in your next issue of the enclosed list of subscriptions to the Jubilee Scholarship Fund, I should like to intimate to intending subscribers and to those gentlemen who have not yet forwarded their promised donations that the fund will be closed on January 15th, 1896. Contributions should be sent to the Treasurer, Mr. F. W. Wragg, 17, Church Lane, Whitechapel, E.

Yours faithfully,

J. MACQUEEN, *Hon. Sec.*

Royal Veterinary College, London, N.W.

*Subscriptions.*

| | | | |
|---|---|---|---|
| The Royal College of Veterinary Surgeons | £ | 50 | 0 0 |
| The Midland Counties Veterinary Medical Association | | 50 | 0 0 |
| The Central Veterinary Medical Society | | 50 | 0 0 |
| The Lancashire Veterinary Medical Association | | 25 | 0 0 |
| The Lincolnshire Veterinary Medical Society | | 5 | 0 0 |
| The South Wales and Monmouthshire Vet. Med. Association | | 5 | 5 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| T. E. Anger | £ | 1 | 1 0 | J. K. Calderwood | | 1 | 1 0 |
| J. Abson | | 3 | 3 0 | J. H. Carter | | 1 | 1 0 |
| W. Anderson | | 1 | 1 0 | W. Caudwell | | 0 | 10 6 |
| N. Almond | | 2 | 2 0 | T. G. Chesterman | | 1 | 1 0 |
| J. Armstrong | | 0 | 10 6 | — Cresswell | | 1 | 1 0 |
| T. Aubrey | | 0 | 10 6 | E. G. Crowhurst | | 2 | 2 0 |
| W. Awde | | 1 | 1 0 | H. Collett | | 1 | 1 0 |
| Vet.-Capt. Appleton | | 1 | 1 0 | H. D. Chorlton | | 1 | 1 0 |
| E. Beddard | | 2 | 2 0 | H. J. Dawes | | 1 | 1 0 |
| W. H. Bloye | | 1 | 1 0 | Thos. Dollar | | 10 | 10 0 |
| Prof. Brown, C.B. | | 5 | 5 0 | Jno. A. W. Dollar | | 2 | 2 0 |
| J. Blakeway | | 1 | 1 0 | W. W. Dollar | | 2 | 2 0 |
| Vet.-Capt. Butler | | 2 | 2 0 | Prof. Dewar | | 1 | 1 0 |
| J. Bell | | 1 | 1 0 | H. Dawson | | 1 | 1 0 |
| G. Balls & Son | | 2 | 2 0 | C. H. De Lacherois | | 0 | 10 0 |
| W. Bower | | 1 | 1 0 | W. Dacre | | 1 | 1 0 |
| J. Bell, Carlisle | | 1 | 1 0 | Prof. Duguid | | 2 | 2 0 |
| W. F. Barrett | | 1 | 1 0 | A. H. Darwell | | 1 | 1 0 |
| Prof. Bradley | | 1 | 1 0 | Prof. Edgar | | 5 | 5 0 |
| A. Baird | | 1 | 1 0 | G. Elphick | | 5 | 5 0 |
| M. G. Byerley | | 1 | 1 0 | E. Faulkner | | 5 | 5 0 |
| A. Broad | | 1 | 1 0 | Dr. Fleming, C.B. | | 2 | 2 0 |
| N. J. Birkett | | 1 | 1 0 | J. Fisher | | 1 | 1 0 |
| H. Bibber | | 0 | 5 0 | W. G. Flannigan | | 1 | 1 0 |
| Brookes | | 1 | 1 0 | Sir F. Fitzwygram | | 5 | 5 0 |
| Buckley | | 1 | 1 0 | J. Fraser | | 1 | 1 0 |
| E. Coleman | | 1 | 5 0 | J. A. Frost | | 1 | 1 0 |
| W. Carless | | 2 | 2 0 | H. Ferguson | | 1 | 1 0 |
| C. Challinor | | 1 | 1 0 | B. Freer | | 1 | 1 0 |
| H. W. Caton | | 2 | 2 0 | Thos. Greaves | | 10 | 0 0 |
| J. R. Cox | | 1 | 1 0 | J. Gold | | 1 | 1 0 |
| W. Cooper | | 2 | 2 3 | F. L. Gooch | | 1 | 1 0 |
| H. Chesser | | 0 | 10 0 | A. L. Gibson | | 1 | 1 0 |
| A. C. Cope | | 2 | 2 0 | V.-Major Gladstone | | 1 | 1 0 |
| J. Clark | | 1 | 1 0 | C. Galloway | | 0 | 10 6 |
| R. Cockburn | | 1 | 1 0 | J. R. Green | | 1 | 1 0 |

| | | | |
|---|---|---|---|
| A. Green .. .. | £1 | 1 | 0 |
| M. Hedley .. .. | 5 | 0 | 0 |
| E. W. Hoare .. | 2 | 2 | 0 |
| J. H. B. Hallen .. .. | 1 | 0 | 0 |
| Prof. Hobday .. .. | 1 | 1 | 0 |
| C. Hartley .. .. | 2 | 2 | 0 |
| G. S. Heatley .. | 1 | 1 | 0 |
| V.-Captain Haslam .. | 1 | 1 | 0 |
| J. Howe .. .. | 0 | 5 | 0 |
| T. Horton .. .. | 1 | 1 | 0 |
| T. Hopkin .. .. | 2 | 2 | 0 |
| R. Hughes .. .. | 2 | 2 | 0 |
| J. Hall .. .. | 0 | 5 | 0 |
| H. Hall .. .. | 0 | 10 | 0 |
| P. Irving .. .. | 0 | 10 | 6 |
| H. Kidd .. .. | 3 | 3 | 0 |
| B. Kettle .. .. | 5 | 5 | 0 |
| Colonel Lambert, C.B. .. | 2 | 2 | 0 |
| G. Lepper & Sons .. | 3 | 3 | 0 |
| V.-Major Longhurst .. | 1 | 1 | 0 |
| S. Locke .. .. | 2 | 2 | 0 |
| A. Lawson .. .. | 2 | 2 | 0 |
| J. Lawson .. .. | 2 | 2 | 0 |
| Prof. McCall .. | 5 | 5 | 0 |
| J. Malcolm .. .. | 3 | 3 | 0 |
| A. W. Mason .. | 3 | 3 | 0 |
| T. J. Merrick .. | 3 | 3 | 0 |
| Prof. McFadyean .. | 5 | 5 | 0 |
| W. J. Mulvey .. | 1 | 1 | 0 |
| C. H. Martin .. | 1 | 1 | 0 |
| W. J. Moore .. | 1 | 0 | 0 |
| J. McKinna .. | 1 | 1 | 0 |
| P. Manûel .. .. | 0 | 10 | 0 |
| F. C. Mahon .. | 1 | 1 | 0 |
| G. G. Mayor .. | 0 | 10 | 6 |
| J. Macqueen .. | 5 | 5 | 0 |
| W. Noar .. .. | 0 | 10 | 0 |
| I. B. Nesbit .. | 2 | 2 | 0 |
| H. Olver .. .. | 5 | 5 | 0 |
| A. Over .. .. | 2 | 2 | 0 |
| V.-Col. Oliver .. | 2 | 2 | 0 |
| T. Olver .. .. | 1 | 1 | 0 |
| J. D. Overed .. | 1 | 1 | 0 |
| J. Peele, J.P. .. | 2 | 2 | 0 |
| A. Peele .. .. | 1 | 1 | 0 |
| Prof. Penberthy .. | 2 | 2 | 0 |
| J. M. Parker .. | 3 | 3 | 0 |
| J. Pollock .. .. | 1 | 1 | 0 |
| A. Prudames .. .. | £1 | 1 | 0 |
| V.-Captain Pringle .. | 1 | 1 | 0 |
| O. H. Pearce .. .. | 0 | 7 | 6 |
| V.-Captain Ringle .. .. | 0 | 10 | 6 |
| F. H. Ridler .. .. | 1 | 1 | 0 |
| W. Roots .. .. | 1 | 1 | 0 |
| M. M. Rock .. .. | 1 | 1 | 0 |
| V.-Major Reilly .. .. | 1 | 1 | 0 |
| R. Rutherford .. .. | 2 | 2 | 0 |
| H. M. Stanley .. .. | 2 | 2 | 0 |
| R. Spooner-Hart .. | 5 | 0 | 0 |
| C. Sheather .. .. | 2 | 2 | 0 |
| H. K. Shaw .. .. | 1 | 1 | 0 |
| M. Stone .. .. .. | 1 | 1 | 0 |
| V.-Captain Smith .. .. | 1 | 1 | 0 |
| Professor Stockman .. | 1 | 1 | 0 |
| J. F. Simpson, J.P. .. | 2 | 2 | 0 |
| J. F. Simpson, J.P. (second subscription) .. .. | 25 | 0 | 0 |
| L. Stratton .. .. | 0 | 10 | 0 |
| J. M. Stewart .. .. | 1 | 1 | 0 |
| W. Shipley, Snr. .. .. | 1 | 1 | 0 |
| W. Shipley, Junr. .. | 0 | 10 | 6 |
| A. H. Santy .. .. | 1 | 1 | 0 |
| M. Tailby .. .. | 3 | 3 | 0 |
| H. Thompson .. .. | 2 | 2 | 0 |
| R. A. Thrale .. .. | 2 | 2 | 0 |
| J. Temple .. .. | 0 | 10 | 6 |
| W. A. Taylor .. .. | 1 | 1 | 0 |
| V. Col. Thompson .. | 2 | 2 | 0 |
| R. C. Trigger .. .. | 10 | 10 | 0 |
| S. Villar .. .. .. | 2 | 2 | 0 |
| Professor Williams .. | 5 | 5 | 0 |
| G. Wartnaby .. .. | 2 | 2 | 0 |
| J. B. Wolstenholme .. | 2 | 2 | 0 |
| A. Wheatley .. .. | 5 | 5 | 0 |
| W. Woods .. .. | 2 | 2 | 0 |
| Professor Wild .. .. | 1 | 1 | 0 |
| F. M. Wallis .. .. | 0 | 10 | 6 |
| W. S. Wilson .. .. | 1 | 1 | 0 |
| J. Watson .. .. .. | 1 | 1 | 0 |
| E. Wood .. .. .. | 0 | 5 | 0 |
| C. Ward .. .. .. | 1 | 1 | 0 |
| R. Ward .. .. .. | 0 | 10 | 6 |
| E. F. Wood .. .. | 0 | 5 | 0 |
| S. Young .. .. .. | 0 | 5 | 0 |
| Total | 513 | 16 | 0 |

November 20, 1895.

---

*To the Editor of* THE VETERINARY JOURNAL.

Edinburgh, 20th November, 1895.

Dear Sir,—Can you furnish me with any information regarding the Irish Veterinary College that our late Government, before its exit, had arranged to subsidise with the handsome sum of £15,000? Has the distressful country

not taken advantage of the unexampled display of generosity to encourage veterinary education for which it was singled out by the powers that were? The likelihood that you may have sources of information, not available to me, I hope you will accept as my excuse for troubling you.—Yours truly,

INQUIRER.

## Notes and News.

SERUM TREATMENT OF TUBERCULOSIS.—Mr. Paginn, Professor of Bacteriology in the Missouri University, argues that as the horse is immune against tuberculosis, its blood serum ought to work beneficently in patients suffering from that disease. He has been using injections in fifty cases, and thinks he has proved its value. He claims that the blood of the horse can be used direct, as it is naturally immune and needs no artificial immunisation. He injects the serum under the skin. (?)

POLITICAL NEWS.—Mr. Charles Moir, Cardiff, our well-known and popular *confrère*, besides pursuing a large and lucrative practice, we are pleased to notice, has commended himself so much to his fellow citizens, that the Conservative Association of that city has selected him to be their chairman. This distinguished honour that has been conferred is a pleasing indication to the profession that not only are we working to obtain scientific prominence, but also social eminence. We feel quite sure Mr. C. Moir will fill the position with great acceptance, and we most heartily congratulate him.

## Obituary.

| | | |
|---|---|---|
| Knowles, Robert, Wisbech, Cambs. | .. | April, 1859. |
| Campbell, Colin, Lyminge, Hythe .. | .. | April, 1887. |

### EDITORIAL NOTE.

THE Editor regrets that a number of valuable contributions, including Reports of the Proceedings of Veterinary Societies, have been crowded out of the present number of the JOURNAL. They will appear in next month's issue.

ERRATA IN REVIEW OF CAPT. SMITH'S VETERINARY PHYSIOLOGY.

November number, page 392:—

Line 2 .. *read* Seyler for Sezler.
Line 9 .. *read* Chauveau for Chauveau's.
Line 10 .. *begins a new sentence.*
Line 19 .. *read* have for leave.

### Communications, Books, Journals, etc., Received.

Recueil de Médecine Vétérinaire (Alfort); La Presse Vétérinaire (Paris), L'Echo Vétérinaire (Liége); Annales de Médecine Vétérinaire (Brussels); Berliner Thierärztliche Wochenschrift (Berlin: Richard Schœtz); Oesterreichische Monatsschrift für Thierheilkunde (Vienna: M. Perles); La Revista Veterinaria (Buenos Aires); Revista de la Facultad de Agronomía y Veterinaria (La Plata); "The Journal of Comparative Medicine and Veterinary Archives," Philadelphia; American Veterinary Review; Investigations of Infectious Diseases among Poultry; The Ox, by A. Seyferth, revised by Professor G. T. Brown, C.B.; Transactions of the Highland and Agricultural Society of Scotland, 1895.